GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: October 29, 2004, 12:34:06 ; Search time 0.001 Seconds
(without alignments)
159.852 Million cell updates/sec

Title: US-09-701-626A-11
Perfect score: 77
Sequence: 1 acctaacaactggttcaagt.....cccttaaccaaacgttaggc 77

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 0.5

Searched: 74 seqs, 1038 residues

Total number of hits satisfying chosen parameters: 148

Minimum DB seq length: 10
Maximum DB seq length: 77

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 86 summaries

Database : rni11.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Result No.	Score	% Query Match	Length	DB	ID	Description
	1	12	15.6	15	1	US-08-182-968A-332	Sequence 332, App
	2	12	15.6	15	1	US-08-774-306A-332	Sequence 332, App
	3	12	15.6	15	1	US-09-064-156A-332	Sequence 332, App
	4	11.4	14.8	14	1	US-09-728-451-16	Sequence 16, Appl
	5	11.4	14.8	15	1	US-08-292-620A-403	Sequence 403, App
	6	11.4	14.8	15	1	US-08-292-620A-617	Sequence 617, App
	7	11.4	14.8	15	1	US-09-071-845-403	Sequence 403, App
	8	11.4	14.8	15	1	US-09-071-845-617	Sequence 617, App
	9	11.4	14.8	15	1	US-09-660-552-13	Sequence 13, Appl
	10	11.4	14.8	15	1	US-09-660-552-16	Sequence 16, Appl
	11	11.4	14.8	15	1	US-09-728-451-15	Sequence 15, Appl
c	12	11.4	14.8	16	1	US-09-479-005A-456	Sequence 456, App
c	13	11.2	14.5	16	1	US-08-411-795B-29	Sequence 29, Appl
c	14	11.2	14.5	16	1	US-08-411-795B-168	Sequence 168, App
c	15	11.2	14.5	16	1	US-08-411-796-29	Sequence 29, Appl
c	16	11.2	14.5	16	1	US-08-469-319A-29	Sequence 29, Appl
c	17	11.2	14.5	16	1	US-08-469-319A-168	Sequence 168, App
c	18	11.2	14.5	16	1	US-08-471-039-29	Sequence 29, Appl
c	19	11.2	14.5	16	1	US-08-764-114-29	Sequence 29, Appl
c	20	11.2	14.5	16	1	US-08-764-114-168	Sequence 168, App
c	21	11.2	14.5	16	1	US-08-469-419-29	Sequence 29, Appl
c	22	11.2	14.5	16	1	US-08-469-419-168	Sequence 168, App
c	23	11.2	14.5	16	1	US-08-559-390-29	Sequence 29, Appl
c	24	11.2	14.5	16	1	US-09-479-005A-224	Sequence 224, App
	25	11.2	14.5	16	1	US-09-244-438-7	Sequence 7, Appli
c	26	11.2	14.5	16	1	PCT-US93-11198-29	Sequence 29, Appl
	27	11	14.3	11	1	US-09-723-942-31	Sequence 31, Appl
	28	11	14.3	15	1	US-08-182-968A-331	Sequence 331, App
	29	11	14.3	15	1	US-08-182-968A-333	Sequence 333, App
	30	11	14.3	15	1	US-08-774-306A-331	Sequence 331, App
	31	11	14.3	15	1	US-08-774-306A-333	Sequence 333, App
	32	11	14.3	15	1	US-08-493-071-29	Sequence 29, Appl
	33	11	14.3	15	1	US-09-064-156A-331	Sequence 331, App
	34	11	14.3	15	1	US-09-064-156A-333	Sequence 333, App
c	35	10.8	14.0	15	1	US-08-182-968A-419	Sequence 419, App
c	36	10.8	14.0	15	1	US-08-363-240A-766	Sequence 766, App
c	37	10.8	14.0	15	1	US-08-363-240A-767	Sequence 767, App
c	38	10.8	14.0	15	1	US-08-774-306A-419	Sequence 419, App
c	39	10.8	14.0	15	1	US-09-064-156A-419	Sequence 419, App
c	40	10.8	14.0	15	1	US-08-871-732A-13	Sequence 13, Appl
c	41	10.8	14.0	15	1	US-09-346-510B-13	Sequence 13, Appl
c	42	10.8	14.0	15	1	US-09-416-003A-10	Sequence 10, Appl
c	43	10.8	14.0	15	1	US-09-881-557A-10	Sequence 10, Appl
	44	10.4	13.5	13	1	US-09-474-432B-127	Sequence 127, App
c	45	10.4	13.5	13	1	US-09-474-432B-185	Sequence 185, App
	46	10.4	13.5	13	1	US-09-476-387-127	Sequence 127, App
c	47	10.4	13.5	13	1	US-09-476-387-185	Sequence 185, App
	48	9.8	12.7	14	1	US-08-180-470-32	Sequence 32, Appl
	49	9.8	12.7	14	1	US-08-180-470-60	Sequence 60, Appl
	50	9.8	12.7	14	1	US-09-068-860-36	Sequence 36, Appl
	51	9.8	12.7	14	1	US-08-730-635-6	Sequence 6, Appli
c	52	9.8	12.7	14	1	US-08-730-635-10	Sequence 10, Appl
	53	9.6	12.5	16	1	US-08-411-795B-29	Sequence 29, Appl
	54	9.6	12.5	16	1	US-08-411-795B-168	Sequence 168, App
	55	9.6	12.5	16	1	US-08-411-796-29	Sequence 29, Appl
	56	9.6	12.5	16	1	US-08-469-319A-29	Sequence 29, Appl
	57	9.6	12.5	16	1	US-08-469-319A-168	Sequence 168, App
	58	9.6	12.5	16	1	US-08-471-039-29	Sequence 29, Appl
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	60	9.6	12.5	16	1	US-08-764-114-168	Sequence 168, App
	61	9.6	12.5	16	1	US-08-469-419-29	Sequence 29, Appl
	62	9.6	12.5	16	1	US-08-469-419-168	Sequence 168, App
	63	9.6	12.5	16	1	US-08-559-390-29	Sequence 29, Appl
	64	9.6	12.5	16	1	PCT-US93-11198-29	Sequence 29, Appl
	65	9.4	12.2	11	1	US-09-249-155A-245	Sequence 245, App
c	66	9.4	12.2	12	1	US-09-281-418-129	Sequence 129, App
c	67	9.4	12.2	13	1	US-08-258-553-3	Sequence 3, Appli
c	68	9.4	12.2	13	1	US-08-489-269-5	Sequence 5, Appli
c	69	9.4	12.2	13	1	US-08-139-459-2	Sequence 2, Appli
	70	9.4	12.2	13	1	US-09-216-584-31	Sequence 31, Appl
	71	9	11.7	10	1	US-09-914-259-132	Sequence 132, App
c	72	9	11.7	11	1	US-08-894-784-3	Sequence 3, Appli
	73	9	11.7	11	1	US-08-544-381B-207	Sequence 207, App
	74	9	11.7	11	1	US-08-778-794A-18	Sequence 18, Appl
	75	9	11.7	11	1	US-09-341-399-18	Sequence 18, Appl
	76	9	11.7	12	1	US-09-046-894-17	Sequence 17, Appl
c	77	9	11.7	12	1	US-09-574-117A-2	Sequence 2, Appli
c	78	8.8	11.4	12	1	US-08-388-171-7	Sequence 7, Appli
c	79	8.8	11.4	12	1	US-08-441-887A-205	Sequence 205, App
c	80	8.8	11.4	12	1	US-08-454-527-7	Sequence 7, Appli
	81	8.8	11.4	12	1	US-08-173-489C-252	Sequence 252, App
c	82	8.8	11.4	12	1	US-08-880-829-3	Sequence 3, Appli
c	83	8.8	11.4	12	1	US-08-771-602D-31	Sequence 31, Appl
c	84	8.8	11.4	12	1	US-08-779-355-19	Sequence 19, Appl
c	85	8.8	11.4	12	1	US-08-938-835A-19	Sequence 19, Appl
	86	8.8	11.4	12	1	5523089-35	Patent No. 5523089

ALIGNMENTS

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RESULT 1
US-08-182-968A-332
; Sequence 332, Application US/08182968A
; Patent No. 5610054
;  GENERAL INFORMATION:
;    APPLICANT:  Draper, Kenneth G.
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  INHIBITING HEPATITIS C
;    TITLE OF INVENTION:  VIRUS REPLICATION
;    NUMBER OF SEQUENCES:  497
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  633 West Fifth Street
;      STREET:  Suite 4700
;      CITY:  Los Angeles
```

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;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  90071-2066
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS 5.0
;      SOFTWARE:  Word Perfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/182,968A
;      FILING DATE:  13-JANUARY-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/882,888
;      FILING DATE:  14-MAY-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  205/277
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  332:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-182-968A-332

  Query Match             15.6%;  Score 12;  DB 1;  Length 15;
  Best Local Similarity   66.7%;  Pred. No. 10;
  Matches    8;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          21 CGTTCGCTTCGC 32
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Db           4 CGUUCGCUUCGC 15


RESULT 2
US-08-774-306A-332
; Sequence 332, Application US/08774306A
; Patent No. 5869253
;  GENERAL INFORMATION:
;    APPLICANT:  Draper, Kenneth G.
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  INHIBITING HEPATITIS C
;    TITLE OF INVENTION:  VIRUS REPLICATION
;    NUMBER OF SEQUENCES:  497
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  633 West Fifth Street
;      STREET:  Suite 4700
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  90071-2066
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS 5.0
;      SOFTWARE:  Word Perfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/774,306A
;      FILING DATE:  December 26, 1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/182,968
;      FILING DATE:  January 13, 1994
;      APPLICATION NUMBER:  07/882,888
;      FILING DATE:  May 14, 1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  223/227
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  332:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-774-306A-332

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  Best Local Similarity   66.7%;  Pred. No. 10;
  Matches    8;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          21 CGTTCGCTTCGC 32
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Db           4 CGUUCGCUUCGC 15


RESULT 3
US-09-064-156A-332
; Sequence 332, Application US/09064156A
; Patent No. 6132966
;  GENERAL INFORMATION:
;    APPLICANT:  Draper, Kenneth G.
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  INHIBITING HEPATITIS C
;    TITLE OF INVENTION:  VIRUS REPLICATION
;    NUMBER OF SEQUENCES:  498
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  633 West Fifth Street
;      STREET:  Suite 4700
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  90071-2066
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS 5.0
;      SOFTWARE:  Word Perfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/064,156A
;      FILING DATE:  April 21, 1998
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/774,306
;      FILING DATE:  December 26, 1996
;      APPLICATION NUMBER:  08/182,968
;      FILING DATE:  January 13, 1994
;      APPLICATION NUMBER:  07/882,888
;      FILING DATE:  May 14, 1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  234/083
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  332:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-09-064-156A-332
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  Query Match             15.6%;  Score 12;  DB 1;  Length 15;
  Best Local Similarity   66.7%;  Pred. No. 10;
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Qy         21 CGTTCGCTTCGC 32
               ||::|||::|||
Db          4 CGUUCGCUUCGC 15


RESULT 4
US-09-728-451-16
; Sequence 16, Application US/09728451
; Patent No. 6458544
; GENERAL INFORMATION:
;  APPLICANT: Miller, Andrew P.
;  APPLICANT:  DNA Sciences, Inc.
;  TITLE OF INVENTION: Methods for Determining Single Nucleotide Variations
;  TITLE OF INVENTION:  and Genotyping
;  FILE REFERENCE: 019553-000410US
;  CURRENT APPLICATION NUMBER: US/09/728,451
;  CURRENT FILING DATE:  2000-12-01
;  PRIOR APPLICATION NUMBER: US 60/168,580
;  PRIOR FILING DATE: 1999-12-02
;  NUMBER OF SEQ ID NOS: 17
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 16
;    LENGTH: 14
;    TYPE: DNA
;    ORGANISM: Artificial Sequence
;    FEATURE:
;    OTHER INFORMATION: Description of Artificial Sequence:unsuitable
;    OTHER INFORMATION: sequence for variant site primer
US-09-728-451-16

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 14;
  Best Local Similarity   92.3%;  Pred. No. 11;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         26 GCTTCGCTCACTC 38
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Db          2 GCTACGCTCACTC 14


RESULT 5
US-08-292-620A-403
; Sequence 403, Application US/08292620A
; Patent No. 5837542
;  GENERAL INFORMATION:
;    APPLICANT:  Susan Grimm
;    APPLICANT:  Dan T. Stinchcomb
;    APPLICANT:  James McSwiggen
;    APPLICANT:  Sean Sullivan
;    APPLICANT:  Kenneth G. Draper
;    TITLE OF INVENTION:  RIBOZYME TREATMENT OF
;    TITLE OF INVENTION:  DISEASES OR CONDITIONS
;    TITLE OF INVENTION:  RELATED TO LEVELS OF
;    TITLE OF INVENTION:  INTRACELLULAR ADHESION
;    TITLE OF INVENTION:  MOLECULE-1 (I-CAM-1)
;    NUMBER OF SEQUENCES:  2390
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  633 West Fifth Street
;      STREET:  Suite 4700
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  90071-2066
;    COMPUTER READABLE FORM:
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;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS 5.0
;      SOFTWARE:  Word Perfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/292,620A
;      FILING DATE:  August 17, 1994
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;    PRIOR APPLICATION DATA:  including application
;    PRIOR APPLICATION DATA:  described below:                    two
;      APPLICATION NUMBER:  08/008,895
;      FILING DATE:  January 19, 1993
;      APPLICATION NUMBER:  07/989,849
;      FILING DATE:  December 7, 1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  208/149
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  403:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-292-620A-403

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 15;
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  Matches    8;  Conservative    4;  Mismatches    1;  Indels    0;  Gaps    0;

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Db          2 AGUCGUCCGCUUC 14


RESULT 6
US-08-292-620A-617
; Sequence 617, Application US/08292620A
; Patent No. 5837542
;  GENERAL INFORMATION:
;    APPLICANT:  Susan Grimm
;    APPLICANT:  Dan T. Stinchcomb
;    APPLICANT:  James McSwiggen
;    APPLICANT:  Sean Sullivan
;    APPLICANT:  Kenneth G. Draper
;    TITLE OF INVENTION:  RIBOZYME TREATMENT OF
;    TITLE OF INVENTION:  DISEASES OR CONDITIONS
;    TITLE OF INVENTION:  RELATED TO LEVELS OF
;    TITLE OF INVENTION:  INTRACELLULAR ADHESION
;    TITLE OF INVENTION:  MOLECULE-1 (I-CAM-1)
;    NUMBER OF SEQUENCES:  2390
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  633 West Fifth Street
;      STREET:  Suite 4700
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  90071-2066
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS 5.0
;      SOFTWARE:  Word Perfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/292,620A
;      FILING DATE:  August 17, 1994
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;    PRIOR APPLICATION DATA:  including application
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;    PRIOR APPLICATION DATA:  described below:                    two
;      APPLICATION NUMBER:  08/008,895
;      FILING DATE:  January 19, 1993
;      APPLICATION NUMBER:  07/989,849
;      FILING DATE:  December 7, 1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  208/149
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  617:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-292-620A-617

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 15;
  Best Local Similarity   61.5%;  Pred. No. 14;
  Matches    8;  Conservative    4;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         18 AGTCGTTCGCTTC 30
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Db          2 AGUCGUCCGCUUC 14


RESULT 7
US-09-071-845-403
; Sequence 403, Application US/09071845
; Patent No. 6132967
;  GENERAL INFORMATION:
;    APPLICANT:  Susan Grimm
;    APPLICANT:  Dan T. Stinchcomb
;    APPLICANT:  James McSwiggen
;    APPLICANT:  Sean Sullivan
;    APPLICANT:  Kenneth G. Draper
;    TITLE OF INVENTION:  RIBOZYME TREATMENT OF
;    TITLE OF INVENTION:  DISEASES OR CONDITIONS
;    TITLE OF INVENTION:  RELATED TO LEVELS OF
;    TITLE OF INVENTION:  INTRACELLULAR ADHESION
;    TITLE OF INVENTION:  MOLECULE-1 (I-CAM-1)
;    NUMBER OF SEQUENCES:  2390
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  633 West Fifth Street
;      STREET:  Suite 4700
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  90071-2066
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS 5.0
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;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/071,845
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/292,620
;      FILING DATE:  August 17, 1994
;      APPLICATION NUMBER:  08/008,895
;      FILING DATE:  January 19, 1993
;      APPLICATION NUMBER:  07/989,849
;      FILING DATE:  December 7, 1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  208/149
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  403:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-09-071-845-403

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 15;
  Best Local Similarity   61.5%;  Pred. No. 14;
  Matches    8;  Conservative    4;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         18 AGTCGTTCGCTTC 30
              ||:||: |||::|
Db          2 AGUCGUCCGCUUC 14


RESULT 8
US-09-071-845-617
; Sequence 617, Application US/09071845
; Patent No. 6132967
;  GENERAL INFORMATION:
;    APPLICANT:  Susan Grimm
;    APPLICANT:  Dan T. Stinchcomb
;    APPLICANT:  James McSwiggen
;    APPLICANT:  Sean Sullivan
;    APPLICANT:  Kenneth G. Draper
;    TITLE OF INVENTION:  RIBOZYME TREATMENT OF
;    TITLE OF INVENTION:  DISEASES OR CONDITIONS
;    TITLE OF INVENTION:  RELATED TO LEVELS OF
;    TITLE OF INVENTION:  INTRACELLULAR ADHESION
;    TITLE OF INVENTION:  MOLECULE-1 (I-CAM-1)
;    NUMBER OF SEQUENCES:  2390
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  633 West Fifth Street
;      STREET:  Suite 4700
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  90071-2066
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS 5.0
;      SOFTWARE:  Word Perfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/071,845
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/292,620
;      FILING DATE:  August 17, 1994
;      APPLICATION NUMBER:  08/008,895
;      FILING DATE:  January 19, 1993
;      APPLICATION NUMBER:  07/989,849
;      FILING DATE:  December 7, 1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  208/149
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  617:
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;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-09-071-845-617

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 15;
  Best Local Similarity   61.5%;  Pred. No. 14;
  Matches    8;  Conservative    4;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         18 AGTCGTTCGCTTC 30
              ||:||: |||::|
Db          2 AGUCGUCCGCUUC 14


RESULT 9
US-09-660-552-13
; Sequence 13, Application US/09660552
; Patent No. 6333178
; GENERAL INFORMATION:
;  APPLICANT:  LIVNEH, Zvi
;  APPLICANT:  BACHER REUVEN, Nina
;  APPLICANT:  TOMER, Guy
;  TITLE OF INVENTION:  METHODS OF REPLICATING A DNA MOLECULE FOR REPAIR OF DNA
;  TITLE OF INVENTION:  LESION DAMAGE
;  TITLE OF INVENTION:  OR FOR MUTAGENESIS
;  FILE REFERENCE:  LIVNEH=1B
;  CURRENT APPLICATION NUMBER: US/09/660,552
;  CURRENT FILING DATE:  2000-09-12
;  PRIOR APPLICATION NUMBER:  09/627,399
;  PRIOR FILING DATE:  2000-07-27
;  PRIOR APPLICATION NUMBER:  60/146,162
;  PRIOR FILING DATE:  1999-07-30
;  NUMBER OF SEQ ID NOS:  31
;  SOFTWARE:  PatentIn Ver. 2.0
; SEQ ID NO 13
;   LENGTH: 15
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:
;   OTHER INFORMATION: oligonucleotide
US-09-660-552-13

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 15;
  Best Local Similarity   92.3%;  Pred. No. 14;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         10 CTGGTTCAAGTCG 22
              |||||||||||  |
Db          1 CTGGTTCAAGTAG 13


RESULT 10
US-09-660-552-16
; Sequence 16, Application US/09660552
; Patent No. 6333178
; GENERAL INFORMATION:
;  APPLICANT:  LIVNEH, Zvi
;  APPLICANT:  BACHER REUVEN, Nina
;  APPLICANT:  TOMER, Guy
;  TITLE OF INVENTION:  METHODS OF REPLICATING A DNA MOLECULE FOR REPAIR OF DNA
;  TITLE OF INVENTION:  LESION DAMAGE
;  TITLE OF INVENTION:  OR FOR MUTAGENESIS
;  FILE REFERENCE:  LIVNEH=1B
;  CURRENT APPLICATION NUMBER: US/09/660,552
;  CURRENT FILING DATE:  2000-09-12
;  PRIOR APPLICATION NUMBER:  09/627,399
;  PRIOR FILING DATE:  2000-07-27
;  PRIOR APPLICATION NUMBER:  60/146,162
;  PRIOR FILING DATE:  1999-07-30
;  NUMBER OF SEQ ID NOS:  31
;  SOFTWARE:  PatentIn Ver. 2.0
; SEQ ID NO 16
;   LENGTH: 15
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:
;   OTHER INFORMATION: oligonucleotide
US-09-660-552-16

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 15;
  Best Local Similarity   92.3%;  Pred. No. 14;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         10 CTGGTTCAAGTCG 22
              |||||||||||  |
Db          1 CTGGTTCAAGTAG 13


RESULT 11
US-09-728-451-15
; Sequence 15, Application US/09728451
; Patent No. 6458544
; GENERAL INFORMATION:
;  APPLICANT: Miller, Andrew P.
;  APPLICANT:  DNA Sciences, Inc.
;  TITLE OF INVENTION: Methods for Determining Single Nucleotide Variations
;  TITLE OF INVENTION:  and Genotyping
;  FILE REFERENCE: 019553-000410US
;  CURRENT APPLICATION NUMBER: US/09/728,451
;  CURRENT FILING DATE:  2000-12-01
;  PRIOR APPLICATION NUMBER: US 60/168,580
;  PRIOR FILING DATE: 1999-12-02
;  NUMBER OF SEQ ID NOS: 17
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 15
;   LENGTH: 15
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:variant site
;   OTHER INFORMATION: primer
US-09-728-451-15

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 15;
  Best Local Similarity   92.3%;  Pred. No. 14;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         26 GCTTCGCTCACTC 38
              ||| |||||||||
Db          2 GCTACGCTCACTC 14


RESULT 12
US-09-479-005A-456/c
; Sequence 456, Application US/09479005A
; Patent No. 6656731
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals, Inc.
;  TITLE OF INVENTION: Nucleic Acid Catalysts with Endonuclease Activity
;  FILE REFERENCE: MBHB00-884-C
;  CURRENT APPLICATION NUMBER: US/09/479,005A
;  CURRENT FILING DATE:  2000-01-07
;  PRIOR APPLICATION NUMBER: US 09/444,209
;  PRIOR FILING DATE: 1999-11-19
;  PRIOR APPLICATION NUMBER: US 09/159,274
;  PRIOR FILING DATE: 1998-09-22
;  PRIOR APPLICATION NUMBER: US 60/059,473
;  PRIOR FILING DATE: 1997-09-22
;  NUMBER OF SEQ ID NOS: 1208
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 456
;   LENGTH: 16
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;   TYPE: RNA
;   ORGANISM: Homo sapiens
US-09-479-005A-456

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 16;
  Best Local Similarity   92.3%;  Pred. No. 18;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          5 AACAACTGGTTCA 17
              ||||||||| |||
Db         13 AACAACTGGATCA 1


RESULT 13
US-08-411-795B-29/c
; Sequence 29, Application US/08411795B
; Patent No. 5604116
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Thomas, John W.
;    TITLE OF INVENTION:  Interleukin-3 (IL-3) Multiple Mutation
;    TITLE OF INVENTION:  Polypeptides
;    NUMBER OF SEQUENCES:  415
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/411,795B
;      FILING DATE:  04-JUN-1995
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/981,044
;      FILING DATE:  24-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11197
;      FILING DATE:  22-NOV-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/2
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  29:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
US-08-411-795B-29

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 20;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 14
US-08-411-795B-168/c
; Sequence 168, Application US/08411795B
; Patent No. 5604116
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Thomas, John W.
;    TITLE OF INVENTION:  Interleukin-3 (IL-3) Multiple Mutation
;    TITLE OF INVENTION:  Polypeptides
;    NUMBER OF SEQUENCES:  415
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/411,795B
;      FILING DATE:  04-JUN-1995
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/981,044
;      FILING DATE:  24-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11197
;      FILING DATE:  22-NOV-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/2
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  168:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
US-08-411-795B-168

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 20;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 15
```

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US-08-411-796-29/c
; Sequence 29, Application US/08411796
; Patent No. 5677149
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Polazzi, Joseph O.
;    APPLICANT:  Thomas, John W.
;    TITLE OF INVENTION:  Interleukin-3 (IL-3) Mutant Polypeptides
;    NUMBER OF SEQUENCES:  549
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/411,796
;      FILING DATE:
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/981044
;      FILING DATE:  24-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11198
;      FILING DATE:  22-NOV-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  29:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
US-08-411-796-29

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 20;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 16
US-08-469-319A-29/c
; Sequence 29, Application US/08469319A
; Patent No. 5817486
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Thomas, John W.
;    TITLE OF INVENTION:  Interleukin-3 (IL-3) Multiple Mutation
;    TITLE OF INVENTION:  Polypeptides
;    NUMBER OF SEQUENCES:  415
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/469,319A
;      FILING DATE:  06-JUN-1995
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/981,044
;      FILING DATE:  24-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11197
;      FILING DATE:  22-NOV-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/6
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  29:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
US-08-469-319A-29

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 20;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 17
US-08-469-319A-168/c
; Sequence 168, Application US/08469319A
; Patent No. 5817486
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Thomas, John W.
```

```
;    TITLE OF INVENTION:  Interleukin-3 (IL-3) Multiple Mutation
;    TITLE OF INVENTION:  Polypeptides
;    NUMBER OF SEQUENCES:  415
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/469,319A
;      FILING DATE:  06-JUN-1995
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/981,044
;      FILING DATE:  24-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11197
;      FILING DATE:  22-NOV-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/6
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  168:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
US-08-469-319A-168

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 20;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 18
US-08-471-039-29/c
; Sequence 29, Application US/08471039
; Patent No. 6017523
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Polazzi, Joseph O.
;    APPLICANT:  Thomas, John W.
;    TITLE OF INVENTION:  Interleukin-3 (IL-3) Mutant Polypeptides
;    NUMBER OF SEQUENCES:  549
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/471,039
;      FILING DATE:  06-JUN-1995
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/981,044
;      FILING DATE:  24-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11198
;      FILING DATE:  22-NOV-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/5
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  29:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
US-08-471-039-29

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 20;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 19
US-08-764-114-29/c
; Sequence 29, Application US/08764114
; Patent No. 6440407
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Thomas, John W.
;    TITLE OF INVENTION:  Methods of Ex-vivo Expansion of
;    TITLE OF INVENTION:  Hematopoietic Cells Using Interleukin-3 (IL-3) Multiple
;    TITLE OF INVENTION:  Mutation Polypeptides
;    NUMBER OF SEQUENCES:  415
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
```

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;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/764,114
;      FILING DATE:  09-DEC-1996
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/981,044
;      FILING DATE:  24-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11197
;      FILING DATE:  22-NOV-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/411,795
;      FILING DATE:  04-JUN-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/10
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  29:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
US-08-764-114-29

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 20;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 20
US-08-764-114-168/c
; Sequence 168, Application US/08764114
; Patent No. 6440407
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Thomas, John W.
;    TITLE OF INVENTION:  Methods of Ex-vivo Expansion of
;    TITLE OF INVENTION:  Hematopoietic Cells Using Interleukin-3 (IL-3) Multiple
;    TITLE OF INVENTION:  Mutation Polypeptides
;    NUMBER OF SEQUENCES:  415
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/764,114
;      FILING DATE:  09-DEC-1996
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/981,044
;      FILING DATE:  24-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11197
;      FILING DATE:  22-NOV-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/411,795
;      FILING DATE:  04-JUN-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/10
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  168:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
US-08-764-114-168

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 20;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 21
US-08-469-419-29/c
; Sequence 29, Application US/08469419
; Patent No. 6458931
;  GENERAL INFORMATION:
;       APPLICANT: Abrams, Mark A.
;                  Bauer, S. C.
;                  Braford-Goldberg, Sarah R.
;                  Caparon, Maire H.
;                  Easton, Alan M.
;                  Klein, Barbara K.
;                  McKearn, John P.
;                  Olins, Peter O.
;                  Paik, Kumnan
;                  Thomas, John W.
;       TITLE OF INVENTION: Interleukin-3 (IL-3) Multiple Mutation
;                           Polypeptides
;       NUMBER OF SEQUENCES: 415
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: Dennis A. Bennett, G.D. Searle & Co.,
;                       Corporate Patent Dept.
;            STREET: P. O. Box 5110
;            CITY: Chicago
;            STATE: Illinois
;            COUNTRY: USA
;            ZIP: 60680
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Floppy disk
;            COMPUTER: IBM PC compatible
;            OPERATING SYSTEM: PC-DOS/MS-DOS
;            SOFTWARE: PatentIn Release #1.0, Version #1.25
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/08/469,419
;            FILING DATE: 06-Jun-1995
;            CLASSIFICATION: <Unknown>
```

```
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 08/411,795
;             FILING DATE: <Unknown>
;             APPLICATION NUMBER: PCT/US93/11197
;             FILING DATE: 22-NOV-1993
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Bennett, Dennis A.
;             REGISTRATION NUMBER: 34,547
;             REFERENCE/DOCKET NUMBER: C2713/2
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (708)470-6501
;             TELEFAX: (708)470-6881
;    INFORMATION FOR SEQ ID NO: 29:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 16 base pairs
;             TYPE: nucleic acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: DNA (synthetic)
;        SEQUENCE DESCRIPTION: SEQ ID NO: 29:
US-08-469-419-29

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 20;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 22
US-08-469-419-168/c
; Sequence 168, Application US/08469419
; Patent No. 6458931
;   GENERAL INFORMATION:
;        APPLICANT: Abrams, Mark A.
;                   Bauer, S. C.
;                   Braford-Goldberg, Sarah R.
;                   Caparon, Maire H.
;                   Easton, Alan M.
;                   Klein, Barbara K.
;                   McKearn, John P.
;                   Olins, Peter O.
;                   Paik, Kumnan
;                   Thomas, John W.
;        TITLE OF INVENTION: Interleukin-3 (IL-3) Multiple Mutation
;                            Polypeptides
;        NUMBER OF SEQUENCES: 415
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Dennis A. Bennett, G.D. Searle & Co.,
;                        Corporate Patent Dept.
;             STREET: P. O. Box 5110
;             CITY: Chicago
;             STATE: Illinois
;             COUNTRY: USA
;             ZIP: 60680
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.25
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/08/469,419
;             FILING DATE: 06-Jun-1995
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 08/411,795
;             FILING DATE: <Unknown>
;             APPLICATION NUMBER: PCT/US93/11197
;             FILING DATE: 22-NOV-1993
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Bennett, Dennis A.
;             REGISTRATION NUMBER: 34,547
;             REFERENCE/DOCKET NUMBER: C2713/2
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (708)470-6501
;             TELEFAX: (708)470-6881
;    INFORMATION FOR SEQ ID NO: 168:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 16 base pairs
;             TYPE: nucleic acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: DNA (synthetic)
;        SEQUENCE DESCRIPTION: SEQ ID NO: 168:
US-08-469-419-168

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 20;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 23
US-08-559-390-29/c
; Sequence 29, Application US/08559390
; Patent No. 6479261
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Polazzi, Joseph O.
;    APPLICANT:  Thomas, John W.
;    TITLE OF INVENTION:  Interleukin-3 (IL-3) Mutant Polypeptides
;    NUMBER OF SEQUENCES:  549
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/559,390
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/411,796
;      FILING DATE:
;      APPLICATION NUMBER:  US 07/981044
;      FILING DATE:  24-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11198
;      FILING DATE:  22-NOV-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
```

```
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  29:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
US-08-559-390-29

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 20;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 24
US-09-479-005A-224/c
; Sequence 224, Application US/09479005A
; Patent No. 6656731
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals, Inc.
;  TITLE OF INVENTION: Nucleic Acid Catalysts with Endonuclease Activity
;  FILE REFERENCE: MBHB00-884-C
;  CURRENT APPLICATION NUMBER: US/09/479,005A
;  CURRENT FILING DATE:  2000-01-07
;  PRIOR APPLICATION NUMBER: US 09/444,209
;  PRIOR FILING DATE: 1999-11-19
;  PRIOR APPLICATION NUMBER: US 09/159,274
;  PRIOR FILING DATE: 1998-09-22
;  PRIOR APPLICATION NUMBER: US 60/059,473
;  PRIOR FILING DATE: 1997-09-22
;  NUMBER OF SEQ ID NOS: 1208
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 224
;   LENGTH: 16
;   TYPE: RNA
;   ORGANISM: Homo sapiens
US-09-479-005A-224

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 20;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          8 AACTGGTTCAAGTCGT 23
              |||||  ||||||| |
Db         16 AACTGCATCAAGTCAT 1


RESULT 25
US-09-244-438-7
; Sequence 7, Application US/09244438
; Patent No. 6777203
; GENERAL INFORMATION:
;  APPLICANT: Morin, Gregg B.
;  APPLICANT: Lichtsteiner, Serge
;  APPLICANT: Vasserot, Alain
;  APPLICANT: Adams, Robert R.
;  APPLICANT: Geron Corporation
;  TITLE OF INVENTION: Telomerase Reverse Transcriptase Transcriptional
;  TITLE OF INVENTION: Regulatory Sequences and Methods of Using
;  FILE REFERENCE: 019/246P
;  CURRENT APPLICATION NUMBER: US/09/244,438
;  CURRENT FILING DATE: 1999-02-04
;  NUMBER OF SEQ ID NOS: 23
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 7
;   LENGTH: 16
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: RA97
US-09-244-438-7

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 20;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         17 AAGTCGTTCGCTTCGC 32
              || ||||  |||||||
Db          1 AATTCGTAAGCTTCGC 16


RESULT 26
PCT-US93-11198-29/c
; Sequence 29, Application PC/TUS9311198
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Polazzi, Joseph O.
;    APPLICANT:  Thomas, John W.
;    TITLE OF INVENTION:  Interleukin-3 (IL-3) Mutant Polypeptides
;    NUMBER OF SEQUENCES:  549
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11198
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/981044
;      FILING DATE:  24-NOV-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  29:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
PCT-US93-11198-29

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 20;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1
```

```
RESULT 27
US-09-723-942-31
; Sequence 31, Application US/09723942
; Patent No. 6747131
; GENERAL INFORMATION:
;  APPLICANT: Pestka, S.
;  TITLE OF INVENTION: MODIFIED PROTEINS, MODIFIED INTERFERONS, ALPHAS AND BETA, PHOSPHO
;  TITLE OF INVENTION:  PROTEINS AND ANALOGUES, DNA SEQUENCES, APPLICATIONS AND USES THE
;  FILE REFERENCE: PBLI-P07-004
;  CURRENT APPLICATION NUMBER: US/09/723,942
;  CURRENT FILING DATE:  2000-11-28
;  PRIOR APPLICATION NUMBER: 08/487,057
;  PRIOR FILING DATE: 1995-06-07
;  NUMBER OF SEQ ID NOS: 38
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 31
;   LENGTH: 11
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-723-942-31

  Query Match             14.3%;  Score 11;  DB 1;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 6.2;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          8 AACTGGTTCAA 18
              ||||||||||| 
Db          1 AACTGGTTCAA 11


RESULT 28
US-08-182-968A-331
; Sequence 331, Application US/08182968A
; Patent No. 5610054
;  GENERAL INFORMATION:
;    APPLICANT:  Draper, Kenneth G.
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  INHIBITING HEPATITIS C
;    TITLE OF INVENTION:  VIRUS REPLICATION
;    NUMBER OF SEQUENCES:  497
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  633 West Fifth Street
;      STREET:  Suite 4700
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  90071-2066
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS 5.0
;      SOFTWARE:  Word Perfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/182,968A
;      FILING DATE:  13-JANUARY-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/882,888
;      FILING DATE:  14-MAY-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  205/277
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  331:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-182-968A-331

  Query Match             14.3%;  Score 11;  DB 1;  Length 15;
  Best Local Similarity   63.6%;  Pred. No. 18;
  Matches    7;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCG 31
              ||::|||::||
Db          5 CGUUCGCUUCG 15


RESULT 29
US-08-182-968A-333
; Sequence 333, Application US/08182968A
; Patent No. 5610054
;  GENERAL INFORMATION:
;    APPLICANT:  Draper, Kenneth G.
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  INHIBITING HEPATITIS C
;    TITLE OF INVENTION:  VIRUS REPLICATION
;    NUMBER OF SEQUENCES:  497
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  633 West Fifth Street
;      STREET:  Suite 4700
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  90071-2066
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS 5.0
;      SOFTWARE:  Word Perfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/182,968A
;      FILING DATE:  13-JANUARY-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/882,888
;      FILING DATE:  14-MAY-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  205/277
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  333:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-182-968A-333

  Query Match             14.3%;  Score 11;  DB 1;  Length 15;
  Best Local Similarity   63.6%;  Pred. No. 18;
  Matches    7;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         22 GTTCGCTTCGC 32
              |::|||::|||
Db          1 GUUCGCUUCGC 11


RESULT 30
US-08-774-306A-331
; Sequence 331, Application US/08774306A
; Patent No. 5869253
```

```
;  GENERAL INFORMATION:
;    APPLICANT:  Draper, Kenneth G.
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  INHIBITING HEPATITIS C
;    TITLE OF INVENTION:  VIRUS REPLICATION
;    NUMBER OF SEQUENCES:  497
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  633 West Fifth Street
;      STREET:  Suite 4700
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  90071-2066
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS 5.0
;      SOFTWARE:  Word Perfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/774,306A
;      FILING DATE:  December 26, 1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/182,968
;      FILING DATE:  January 13, 1994
;      APPLICATION NUMBER:  07/882,888
;      FILING DATE:  May 14, 1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  223/227
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  331:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-774-306A-331

  Query Match             14.3%;  Score 11;  DB 1;  Length 15;
  Best Local Similarity   63.6%;  Pred. No. 18;
  Matches    7;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCG 31
              ||::|||::||
Db          5 CGUUCGCUUCG 15


RESULT 31
US-08-774-306A-333
; Sequence 333, Application US/08774306A
; Patent No. 5869253
;  GENERAL INFORMATION:
;    APPLICANT:  Draper, Kenneth G.
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  INHIBITING HEPATITIS C
;    TITLE OF INVENTION:  VIRUS REPLICATION
;    NUMBER OF SEQUENCES:  497
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  633 West Fifth Street
;      STREET:  Suite 4700
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  90071-2066
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS 5.0
;      SOFTWARE:  Word Perfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/774,306A
;      FILING DATE:  December 26, 1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/182,968
;      FILING DATE:  January 13, 1994
;      APPLICATION NUMBER:  07/882,888
;      FILING DATE:  May 14, 1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  223/227
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  333:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-774-306A-333

  Query Match             14.3%;  Score 11;  DB 1;  Length 15;
  Best Local Similarity   63.6%;  Pred. No. 18;
  Matches    7;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         22 GTTCGCTTCGC 32
              |::|||::|||
Db          1 GUUCGCUUCGC 11


RESULT 32
US-08-493-071-29
; Sequence 29, Application US/08493071
; Patent No. 6127149
;  GENERAL INFORMATION:
;    APPLICANT:  Hirai, Yohei
;    APPLICANT:  Koshida, Shogo
;    APPLICANT:  Oka, Yumiko
;    TITLE OF INVENTION:  MODIFIED EPIMORPHIN
;    NUMBER OF SEQUENCES:  30
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  LOWE, PRICE, LEBLANC & BECKER
;      STREET:  99 CANAL CENTER PLAZA, SUITE 300
;      CITY:  ALEXANDRIA
;      STATE:  VA
;      COUNTRY:  USA
;      ZIP:  22314
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/493,071
;      FILING DATE:
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Price, Robert L.
;      REGISTRATION NUMBER:  22,685
;      REFERENCE/DOCKET NUMBER:  715-107
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  703-684-1111
;      TELEFAX:  703-684-1124
;  INFORMATION FOR SEQ ID NO:  29:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15 base pairs
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teach amplification using 332 as primer

do not discuss detection

```
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  cDNA
US-08-493-071-29

  Query Match             14.3%;  Score 11;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 18;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         38 CGGGACCGGCT 48
              ||||||||||
Db          4 CGGGACCGGCT 14


RESULT 33
US-09-064-156A-331
; Sequence 331, Application US/09064156A
; Patent No. 6132966
;  GENERAL INFORMATION:
;    APPLICANT:  Draper, Kenneth G.
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  INHIBITING HEPATITIS C
;    TITLE OF INVENTION:  VIRUS REPLICATION
;    NUMBER OF SEQUENCES:  498
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  633 West Fifth Street
;      STREET:  Suite 4700
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  90071-2066
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS 5.0
;      SOFTWARE:  Word Perfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/064,156A
;      FILING DATE:  April 21, 1998
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/774,306
;      FILING DATE:  December 26, 1996
;      APPLICATION NUMBER:  08/182,968
;      FILING DATE:  January 13, 1994
;      APPLICATION NUMBER:  07/882,888
;      FILING DATE:  May 14, 1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  234/083
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  331:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-09-064-156A-331

  Query Match             14.3%;  Score 11;  DB 1;  Length 15;
  Best Local Similarity   63.6%;  Pred. No. 18;
  Matches    7;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCG 31
              ||::|||::||
Db          5 CGUUCGCUUCG 15


RESULT 34
US-09-064-156A-333
; Sequence 333, Application US/09064156A
; Patent No. 6132966
;  GENERAL INFORMATION:
;    APPLICANT:  Draper, Kenneth G.
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  INHIBITING HEPATITIS C
;    TITLE OF INVENTION:  VIRUS REPLICATION
;    NUMBER OF SEQUENCES:  498
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  633 West Fifth Street
;      STREET:  Suite 4700
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  90071-2066
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS 5.0
;      SOFTWARE:  Word Perfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/064,156A
;      FILING DATE:  April 21, 1998
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/774,306
;      FILING DATE:  December 26, 1996
;      APPLICATION NUMBER:  08/182,968
;      FILING DATE:  January 13, 1994
;      APPLICATION NUMBER:  07/882,888
;      FILING DATE:  May 14, 1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  234/083
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  333:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-09-064-156A-333

  Query Match             14.3%;  Score 11;  DB 1;  Length 15;
  Best Local Similarity   63.6%;  Pred. No. 18;
  Matches    7;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         22 GTTCGCTTCGC 32
              |::|||::|||
Db          1 GUUCGCUUCGC 11


RESULT 35
US-08-182-968A-419/c
; Sequence 419, Application US/08182968A
; Patent No. 5610054
;  GENERAL INFORMATION:
;    APPLICANT:  Draper, Kenneth G.
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  INHIBITING HEPATITIS C
;    TITLE OF INVENTION:  VIRUS REPLICATION
;    NUMBER OF SEQUENCES:  497
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  633 West Fifth Street
```

```
;      STREET:  Suite 4700
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  90071-2066
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS 5.0
;      SOFTWARE:  Word Perfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/182,968A
;      FILING DATE:  13-JANUARY-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/882,888
;      FILING DATE:  14-MAY-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  205/277
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  419:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-182-968A-419

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 20;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          56 GCCCCTTAACCAAA 69
               ||||| || |||||
Db          14 GCCCCATAGCCAAA 1


RESULT 36
US-08-363-240A-766/c
; Sequence 766, Application US/08363240A
; Patent No. 5705388
;  GENERAL INFORMATION:
;    APPLICANT:  Couture, Larry
;    APPLICANT:  McSwiggen, James
;    APPLICANT:  Bisgaier, Charles
;    APPLICANT:  Pape, Michael
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  PREVENTION, INHIBITION OF
;    TITLE OF INVENTION:  PROGRESSION AND REGRESSION
;    TITLE OF INVENTION:  OF VASCULAR DISEASES
;    NUMBER OF SEQUENCES:  1243
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  633 West Fifth Street
;      STREET:  Suite 4700
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  90071
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS 5.0
;      SOFTWARE:  Word Perfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/363,240A
;      FILING DATE:  December 23, 1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  210/096
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  766:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-363-240A-766

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 20;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          43 CCGGCTAAAGCCGG 56
               | |||||||||| |
Db          15 CAGGCTAAAGCCAG 2


RESULT 37
US-08-363-240A-767/c
; Sequence 767, Application US/08363240A
; Patent No. 5705388
;  GENERAL INFORMATION:
;    APPLICANT:  Couture, Larry
;    APPLICANT:  McSwiggen, James
;    APPLICANT:  Bisgaier, Charles
;    APPLICANT:  Pape, Michael
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  PREVENTION, INHIBITION OF
;    TITLE OF INVENTION:  PROGRESSION AND REGRESSION
;    TITLE OF INVENTION:  OF VASCULAR DISEASES
;    NUMBER OF SEQUENCES:  1243
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  633 West Fifth Street
;      STREET:  Suite 4700
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  90071
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS 5.0
;      SOFTWARE:  Word Perfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/363,240A
;      FILING DATE:  December 23, 1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  210/096
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  767:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15 base pairs
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;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-363-240A-767

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 20;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         43 CCGGCTAAAGCCGG 56
              | ||||||||||  |
Db         14 CAGGCTAAAGCCAG 1


RESULT 38
US-08-774-306A-419/c
; Sequence 419, Application US/08774306A
; Patent No. 5869253
;  GENERAL INFORMATION:
;    APPLICANT:  Draper, Kenneth G.
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  INHIBITING HEPATITIS C
;    TITLE OF INVENTION:  VIRUS REPLICATION
;    NUMBER OF SEQUENCES:  497
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  633 West Fifth Street
;      STREET:  Suite 4700
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  90071-2066
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS 5.0
;      SOFTWARE:  Word Perfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/774,306A
;      FILING DATE:  December 26, 1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/182,968
;      FILING DATE:  January 13, 1994
;      APPLICATION NUMBER:  07/882,888
;      FILING DATE:  May 14, 1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  223/227
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  419:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-774-306A-419

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 20;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
              |||||  ||  |||||
Db         14 GCCCCATAGCCAAA 1


RESULT 39
US-09-064-156A-419/c
; Sequence 419, Application US/09064156A
; Patent No. 6132966
;  GENERAL INFORMATION:
;    APPLICANT:  Draper, Kenneth G.
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  INHIBITING HEPATITIS C
;    TITLE OF INVENTION:  VIRUS REPLICATION
;    NUMBER OF SEQUENCES:  498
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  633 West Fifth Street
;      STREET:  Suite 4700
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  90071-2066
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS 5.0
;      SOFTWARE:  Word Perfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/064,156A
;      FILING DATE:  April 21, 1998
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/774,306
;      FILING DATE:  December 26, 1996
;      APPLICATION NUMBER:  08/182,968
;      FILING DATE:  January 13, 1994
;      APPLICATION NUMBER:  07/882,888
;      FILING DATE:  May 14, 1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  234/083
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  419:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-09-064-156A-419

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 20;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
              |||||  ||  |||||
Db         14 GCCCCATAGCCAAA 1


RESULT 40
US-08-871-732A-13/c
; Sequence 13, Application US/08871732A
; Patent No. 6140074
;  GENERAL INFORMATION:
;    APPLICANT:  O'BRIEN, TIMOTHY J.
;    APPLICANT:  WANG, YIN
;    TITLE OF INVENTION:  NOVEL SH3 PROTEIN, GENE, CHIMERIC
;    TITLE OF INVENTION:  CELLS, VECTORS AND EXPRESSION METHOD FOR PRODUCING THE NOVEL
;    TITLE OF INVENTION:  PROTEIN, ANTIBODIES AND USES
;    NUMBER OF SEQUENCES:  16
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  MARTIN L. MCGREGOR
;      STREET:  5380  WEST 34TH STREET, #345
;      CITY:  HOUSTON
;      STATE:  TEXAS
```

```
;       COUNTRY:  UNITED STATES OF AMERICA
;       ZIP:  77092
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  DISKETTE 3.5 INCH 1.44 MB STORAGE
;       COMPUTER:  IBM COMPATIBLE
;       OPERATING SYSTEM:  MS-DOS
;       SOFTWARE:  WORDPERFECT 6.1
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/871,732A
;       FILING DATE:
;       CLASSIFICATION:  435
;     PRIOR APPLICATION DATA:
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  MCGREGOR, MARTIN L.
;       REGISTRATION NUMBER:  29,329
;       REFERENCE/DOCKET NUMBER:  1-1
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  713-682-1213
;       TELEFAX:  713-682-5807
;       TELEX:  NONE
;   INFORMATION FOR SEQ ID NO:  13:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  15 BASE PAIRS
;       TYPE:  NUCLEIC ACID
;       STRANDEDNESS:  SINGLE
;       TOPOLOGY:  LINEAR
;     MOLECULE TYPE:  OTHER NUCLEIC ACID
;     HYPOTHETICAL:  NO
;     ANTI-SENSE:  NO
US-08-871-732A-13

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 20;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         55 GGCCCCTTAACCAA 68
              | | ||||||||||
Db         15 GTCGCCTTAACCAA 2


RESULT 41
US-09-346-510B-13/c
; Sequence 13, Application US/09346510B
; Patent No. 6281014
; GENERAL INFORMATION:
;  APPLICANT:   O'Brien, Timothy J.
;  APPLICANT:  Wang, Yinxiang
;  TITLE OF INVENTION:   SH3-Containing Protein, DNA and Uses Thereof
;  FILE REFERENCE:   D6221CIP
;  CURRENT APPLICATION NUMBER: US/09/346,510B
;  CURRENT FILING DATE:  1999-07-01
;  PRIOR APPLICATION NUMBER:   08/871,732
;  PRIOR FILING DATE:   1997-06-09
;  NUMBER OF SEQ ID NOS:   32
; SEQ ID NO 13
;   LENGTH: 15
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: nucleotide sequence of clone 20 isolated using the
;   OTHER INFORMATION: CASTing approach
US-09-346-510B-13

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 20;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         55 GGCCCCTTAACCAA 68
              | | ||||||||||
Db         15 GTCGCCTTAACCAA 2


RESULT 42
US-09-416-003A-10/c
; Sequence 10, Application US/09416003A
; Patent No. 6297016
; GENERAL INFORMATION:
;  APPLICANT:  EGHOLM, Michael
;  APPLICANT:  CHEN, Caifu
;  TITLE OF INVENTION:  TEMPLATE-DEPENDENT LIGATION WITH PNA-DNA CHIMERIC
;  TITLE OF INVENTION:  PROBES
;  FILE REFERENCE:  4474US
;  CURRENT APPLICATION NUMBER: US/09/416,003A
;  CURRENT FILING DATE:  1999-10-08
;  NUMBER OF SEQ ID NOS:  27
;  SOFTWARE:  PatentIn Ver. 2.1
; SEQ ID NO 10
;   LENGTH: 15
;   TYPE: DNA
;   ORGANISM: Unknown Organism
;   FEATURE:
;   OTHER INFORMATION: Description of Unknown Organism: Bacterial
US-09-416-003A-10

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 20;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         48 TAAAGCCGGCCCCT 61
              |||||||||  |||
Db         15 TAAAGCCGGGACCT 2


RESULT 43
US-09-881-557A-10/c
; Sequence 10, Application US/09881557A
; Patent No. 6469151
; GENERAL INFORMATION:
;  APPLICANT: EGHOLM, Michael
;  APPLICANT:  CHEN, Caifu
;  TITLE OF INVENTION: TEMPLATE-DEPENDENT LIGATION WITH PNA-DNA CHIMERIC
;  TITLE OF INVENTION:  PROBES
;  FILE REFERENCE: 4474US
;  CURRENT APPLICATION NUMBER: US/09/881,557A
;  CURRENT FILING DATE:  2001-06-14
;  PRIOR APPLICATION NUMBER: US/09/416,003
;  PRIOR FILING DATE: 1999-10-08
;  NUMBER OF SEQ ID NOS: 27
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 10
;   LENGTH: 15
;   TYPE: DNA
;   ORGANISM: Unknown Organism
;   FEATURE:
;   OTHER INFORMATION: Description of Unknown Organism: Bacterial
US-09-881-557A-10

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 20;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         48 TAAAGCCGGCCCCT 61
              |||||||||  |||
Db         15 TAAAGCCGGGACCT 2


RESULT 44
US-09-474-432B-127
; Sequence 127, Application US/09474432B
; Patent No. 6528640
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals, Inc.
;  APPLICANT:  Beigelman, Leo
;  APPLICANT:  Burgin, Alex
;  APPLICANT:  Beaudry, Amber
;  APPLICANT:  Karpeisky, Alex
```

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;  APPLICANT:  Adamic, Jasenka
;  APPLICANT:  Sweedler, David
;  APPLICANT:  Zinnen, Shawn
;  TITLE OF INVENTION: Nucleotide triphosphate and their incorporation into oligonucleot
;  FILE REFERENCE: MBHB00-831-B (247/276)
;  CURRENT APPLICATION NUMBER: US/09/474,432B
;  CURRENT FILING DATE:  1999-12-19
;  PRIOR APPLICATION NUMBER: US 60/064,866
;  PRIOR FILING DATE: 1997-11-05
;  PRIOR APPLICATION NUMBER: US 60/084,727
;  PRIOR FILING DATE: 1998-04-29
;  PRIOR APPLICATION NUMBER: US 09/186,675
;  PRIOR FILING DATE: 1998-11-04
;  PRIOR APPLICATION NUMBER: US 09/301,511
;  PRIOR FILING DATE: 1999-04-28
;  NUMBER OF SEQ ID NOS: 1526
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 127
;   LENGTH: 13
;   TYPE: RNA
;   ORGANISM: Homo sapiens
US-09-474-432B-127

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   66.7%;  Pred. No. 15;
  Matches    8;  Conservative    3;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         26 GCTTCGCTCACT 37
              ||: |||:|||:
Db          2 GCUGCGCUCACU 13


RESULT 45
US-09-474-432B-185/c
; Sequence 185, Application US/09474432B
; Patent No. 6528640
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals, Inc.
;  APPLICANT:  Beigelman, Leo
;  APPLICANT:  Burgin, Alex
;  APPLICANT:  Beaudry, Amber
;  APPLICANT:  Karpeisky, Alex
;  APPLICANT:  Adamic, Jasenka
;  APPLICANT:  Sweedler, David
;  APPLICANT:  Zinnen, Shawn
;  TITLE OF INVENTION: Nucleotide triphosphate and their incorporation into oligonucleot
;  FILE REFERENCE: MBHB00-831-B (247/276)
;  CURRENT APPLICATION NUMBER: US/09/474,432B
;  CURRENT FILING DATE:  1999-12-19
;  PRIOR APPLICATION NUMBER: US 60/064,866
;  PRIOR FILING DATE: 1997-11-05
;  PRIOR APPLICATION NUMBER: US 60/084,727
;  PRIOR FILING DATE: 1998-04-29
;  PRIOR APPLICATION NUMBER: US 09/186,675
;  PRIOR FILING DATE: 1998-11-04
;  PRIOR APPLICATION NUMBER: US 09/301,511
;  PRIOR FILING DATE: 1999-04-28
;  NUMBER OF SEQ ID NOS: 1526
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 185
;   LENGTH: 13
;   TYPE: RNA
;   ORGANISM: Homo sapiens
US-09-474-432B-185

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 15;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         51 AGCCGGCCCCTT 62
              |||| |||||||
Db         13 AGCCAGCCCCTT 2


RESULT 46
US-09-476-387-127
; Sequence 127, Application US/09476387
; Patent No. 6617438
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals, Inc.
;  APPLICANT:  Beigelman, Leo
;  APPLICANT:  Beaudry, Amber
;  APPLICANT:  Karpeisky, Alex
;  APPLICANT:  Adamic, Jasenka Matulic
;  APPLICANT:  Sweedler, Dave
;  APPLICANT:  Zinnen, Shawn
;  TITLE OF INVENTION: Nucleotide Triphosphate and their Incorporation into Oligonucleot
;  FILE REFERENCE: MBHB00-831-C (249/073)
;  CURRENT APPLICATION NUMBER: US/09/476,387
;  CURRENT FILING DATE:  2001-04-04
;  PRIOR APPLICATION NUMBER: 09/474,432
;  PRIOR FILING DATE: 1999-12-29
;  PRIOR APPLICATION NUMBER: 09/301,511
;  PRIOR FILING DATE: 1999-04-28
;  PRIOR APPLICATION NUMBER: 09/186,675
;  PRIOR FILING DATE: 1998-11-04
;  PRIOR APPLICATION NUMBER: 60/083,727
;  PRIOR FILING DATE: 1998-04-29
;  PRIOR APPLICATION NUMBER: 60/064,866
;  PRIOR FILING DATE: 1997-11-05
;  NUMBER OF SEQ ID NOS: 1524
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 127
;   LENGTH: 13
;   TYPE: RNA
;   ORGANISM: Homo sapiens
US-09-476-387-127

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   66.7%;  Pred. No. 15;
  Matches    8;  Conservative    3;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         26 GCTTCGCTCACT 37
              ||: |||:|||:
Db          2 GCUGCGCUCACU 13


RESULT 47
US-09-476-387-185/c
; Sequence 185, Application US/09476387
; Patent No. 6617438
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals, Inc.
;  APPLICANT:  Beigelman, Leo
;  APPLICANT:  Beaudry, Amber
;  APPLICANT:  Karpeisky, Alex
;  APPLICANT:  Adamic, Jasenka Matulic
;  APPLICANT:  Sweedler, Dave
;  APPLICANT:  Zinnen, Shawn
;  TITLE OF INVENTION: Nucleotide Triphosphate and their Incorporation into Oligonucleot
;  FILE REFERENCE: MBHB00-831-C (249/073)
;  CURRENT APPLICATION NUMBER: US/09/476,387
;  CURRENT FILING DATE:  2001-04-04
;  PRIOR APPLICATION NUMBER: 09/474,432
;  PRIOR FILING DATE: 1999-12-29
;  PRIOR APPLICATION NUMBER: 09/301,511
;  PRIOR FILING DATE: 1999-04-28
;  PRIOR APPLICATION NUMBER: 09/186,675
;  PRIOR FILING DATE: 1998-11-04
;  PRIOR APPLICATION NUMBER: 60/083,727
;  PRIOR FILING DATE: 1998-04-29
;  PRIOR APPLICATION NUMBER: 60/064,866
;  PRIOR FILING DATE: 1997-11-05
;  NUMBER OF SEQ ID NOS: 1524
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 185
```

```
;   LENGTH: 13
;   TYPE: RNA
;   ORGANISM: Homo sapiens
US-09-476-387-185

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 15;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         51 AGCCGGCCCCTT 62
               |||| |||||||
Db         13 AGCCAGCCCCTT 2


RESULT 48
US-08-180-470-32
; Sequence 32, Application US/08180470
; Patent No. 6045994
;  GENERAL INFORMATION:
;    APPLICANT:  ZABEAU, Marc
;    APPLICANT:  VOS, Pieter
;    TITLE OF INVENTION:  SELECTIVE RESTRICTION FRAGMENT
;    TITLE OF INVENTION:  AMPLIFICATION:  A GENERAL METHOD FOR DNA
;    NUMBER OF SEQUENCES:  90
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Burns, Doane, Swecker & Mathis
;      STREET:  The George Mason Bldg., Washington & Prince
;      STREET:  Sts.
;      CITY:  Alexandria
;      STATE:  Virginia
;      COUNTRY:  United States
;      ZIP:  22313-1404
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/180,470
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/950,011
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Crane-Feury, Sharon E
;      REGISTRATION NUMBER:  36,113
;      REFERENCE/DOCKET NUMBER:  010830-031
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (703) 836-6620
;      TELEFAX:  (703) 836-2021
;  INFORMATION FOR SEQ ID NO:  32:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  14 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (genomic)
US-08-180-470-32

  Query Match             12.7%;  Score 9.8;  DB 1;  Length 14;
  Best Local Similarity   84.6%;  Pred. No. 27;
  Matches   11;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         35 ACTCGGGACCGGC 47
               |||| |||| |||
Db          2 ACTCAGGACTGGC 14


RESULT 49
US-08-180-470-60
; Sequence 60, Application US/08180470
; Patent No. 6045994
;  GENERAL INFORMATION:
;    APPLICANT:  ZABEAU, Marc
;    APPLICANT:  VOS, Pieter
;    TITLE OF INVENTION:  SELECTIVE RESTRICTION FRAGMENT
;    TITLE OF INVENTION:  AMPLIFICATION:  A GENERAL METHOD FOR DNA
;    NUMBER OF SEQUENCES:  90
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Burns, Doane, Swecker & Mathis
;      STREET:  The George Mason Bldg., Washington & Prince
;      STREET:  Sts.
;      CITY:  Alexandria
;      STATE:  Virginia
;      COUNTRY:  United States
;      ZIP:  22313-1404
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/180,470
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/950,011
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Crane-Feury, Sharon E
;      REGISTRATION NUMBER:  36,113
;      REFERENCE/DOCKET NUMBER:  010830-031
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (703) 836-6620
;      TELEFAX:  (703) 836-2021
;  INFORMATION FOR SEQ ID NO:  60:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  14 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (genomic)
US-08-180-470-60

  Query Match             12.7%;  Score 9.8;  DB 1;  Length 14;
  Best Local Similarity   84.6%;  Pred. No. 27;
  Matches   11;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         35 ACTCGGGACCGGC 47
               |||| |||| |||
Db          2 ACTCAGGACTGGC 14


RESULT 50
US-09-068-860-36
; Sequence 36, Application US/09068860
; Patent No. 6261770
; GENERAL INFORMATION:
;  APPLICANT: WARTHOE, Peter R.
;  TITLE OF INVENTION: METHOD TO CLONE MRNAS
;  FILE REFERENCE: 674513-2001.1
;  CURRENT APPLICATION NUMBER: US/09/068,860
;  CURRENT FILING DATE: 1998-05-17
;  EARLIER APPLICATION NUMBER: PCT/DK98/00186
;  EARLIER FILING DATE: 1998-05-13
;  EARLIER APPLICATION NUMBER: 0547/97
;  EARLIER FILING DATE: 1997-05-13
;  EARLIER APPLICATION NUMBER: 0432/98
;  EARLIER FILING DATE: 1998-03-27
;  NUMBER OF SEQ ID NOS: 42
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 36
;   LENGTH: 14
;   TYPE: DNA
;   ORGANISM: Thermophilic eubacteria
```

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US-09-068-860-36

  Query Match             12.7%;  Score 9.8;  DB 1;  Length 14;
  Best Local Similarity   84.6%;  Pred. No. 27;
  Matches   11;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         35 ACTCGGGACCGGC 47
              |||| |||| |||
Db          2 ACTCAGGACTGGC 14


RESULT 51
US-08-730-635-6
; Sequence 6, Application US/08730635
; Patent No. 6514693
;  GENERAL INFORMATION:
;    APPLICANT:  Lansdorp, Peter
;    TITLE OF INVENTION:  Method for Detecting Multiple Copies of
;    TITLE OF INVENTION:  a Repeat Sequence in a Nucleic Acid Molecule
; Patent No. 6514693
;    NUMBER OF SEQUENCES:  14
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  HOWSON & HOWSON
;      STREET:  321 No. 6514693ristown Road
;      CITY:  Spring House
;      STATE:  PA
;      COUNTRY:  U.S.A.
;      ZIP:  19477
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/730,635
;      FILING DATE:  11-OCT-1996
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bak, Mary E.
;      REGISTRATION NUMBER:  31,215
;      REFERENCE/DOCKET NUMBER:  B&P7USA
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (215) 540-9200
;      TELEFAX:  (215) 540-5818
;      TELEX:  N/A
;  INFORMATION FOR SEQ ID NO:  6:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  14 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (genomic)
US-08-730-635-6

  Query Match             12.7%;  Score 9.8;  DB 1;  Length 14;
  Best Local Similarity   84.6%;  Pred. No. 27;
  Matches   11;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCAAAC 70
              ||| |||| ||||
Db          1 CCCATAACTAAAC 13


RESULT 52
US-08-730-635-10/c
; Sequence 10, Application US/08730635
; Patent No. 6514693
;  GENERAL INFORMATION:
;    APPLICANT:  Lansdorp, Peter
;    TITLE OF INVENTION:  Method for Detecting Multiple Copies of
;    TITLE OF INVENTION:  a Repeat Sequence in a Nucleic Acid Molecule
; Patent No. 6514693
;    NUMBER OF SEQUENCES:  14
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  HOWSON & HOWSON
;      STREET:  321 No. 6514693ristown Road
;      CITY:  Spring House
;      STATE:  PA
;      COUNTRY:  U.S.A.
;      ZIP:  19477
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/730,635
;      FILING DATE:  11-OCT-1996
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bak, Mary E.
;      REGISTRATION NUMBER:  31,215
;      REFERENCE/DOCKET NUMBER:  B&P7USA
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (215) 540-9200
;      TELEFAX:  (215) 540-5818
;      TELEX:  N/A
;  INFORMATION FOR SEQ ID NO:  10:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  14 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (genomic)
US-08-730-635-10

  Query Match             12.7%;  Score 9.8;  DB 1;  Length 14;
  Best Local Similarity   84.6%;  Pred. No. 27;
  Matches   11;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCAAAC 70
              ||| |||| ||||
Db         14 CCCATAACTAAAC 2


RESULT 53
US-08-411-795B-29
; Sequence 29, Application US/08411795B
; Patent No. 5604116
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Thomas, John W.
;    TITLE OF INVENTION:  Interleukin-3 (IL-3) Multiple Mutation
;    TITLE OF INVENTION:  Polypeptides
;    NUMBER OF SEQUENCES:  415
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
```

```
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/411,795B
;      FILING DATE:  04-JUN-1995
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/981,044
;      FILING DATE:  24-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11197
;      FILING DATE:  22-NOV-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/2
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  29:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
US-08-411-795B-29

  Query Match             12.5%;  Score 9.6;  DB 1;  Length 16;
  Best Local Similarity   75.0%;  Pred. No. 44;
  Matches   12;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGTTAGG 76
              | ||||| | || |||
Db          1 TGAACCATATGTCAGG 16


RESULT 54
US-08-411-795B-168
; Sequence 168, Application US/08411795B
; Patent No. 5604116
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Thomas, John W.
;    TITLE OF INVENTION:  Interleukin-3 (IL-3) Multiple Mutation
;    TITLE OF INVENTION:  Polypeptides
;    NUMBER OF SEQUENCES:  415
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/411,795B
;      FILING DATE:  04-JUN-1995
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/981,044
;      FILING DATE:  24-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11197
;      FILING DATE:  22-NOV-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/2
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  168:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
US-08-411-795B-168

  Query Match             12.5%;  Score 9.6;  DB 1;  Length 16;
  Best Local Similarity   75.0%;  Pred. No. 44;
  Matches   12;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGTTAGG 76
              | ||||| | || |||
Db          1 TGAACCATATGTCAGG 16


RESULT 55
US-08-411-796-29
; Sequence 29, Application US/08411796
; Patent No. 5677149
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Polazzi, Joseph O.
;    APPLICANT:  Thomas, John W.
;    TITLE OF INVENTION:  Interleukin-3 (IL-3) Mutant Polypeptides
;    NUMBER OF SEQUENCES:  549
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/411,796
;      FILING DATE:
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/981044
;      FILING DATE:  24-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11198
;      FILING DATE:  22-NOV-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/1
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;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  29:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
US-08-411-796-29

  Query Match             12.5%;  Score 9.6;  DB 1;  Length 16;
  Best Local Similarity   75.0%;  Pred. No. 44;
  Matches   12;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGTTAGG 76
              | ||||| | || |||
Db          1 TGAACCATATGTCAGG 16


RESULT 56
US-08-469-319A-29
; Sequence 29, Application US/08469319A
; Patent No. 5817486
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Thomas, John W.
;    TITLE OF INVENTION:  Interleukin-3 (IL-3) Multiple Mutation
;    TITLE OF INVENTION:  Polypeptides
;    NUMBER OF SEQUENCES:  415
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/469,319A
;      FILING DATE:  06-JUN-1995
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/981,044
;      FILING DATE:  24-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11197
;      FILING DATE:  22-NOV-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/6
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  29:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
US-08-469-319A-29

  Query Match             12.5%;  Score 9.6;  DB 1;  Length 16;
  Best Local Similarity   75.0%;  Pred. No. 44;
  Matches   12;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGTTAGG 76
              | ||||| | || |||
Db          1 TGAACCATATGTCAGG 16


RESULT 57
US-08-469-319A-168
; Sequence 168, Application US/08469319A
; Patent No. 5817486
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Thomas, John W.
;    TITLE OF INVENTION:  Interleukin-3 (IL-3) Multiple Mutation
;    TITLE OF INVENTION:  Polypeptides
;    NUMBER OF SEQUENCES:  415
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/469,319A
;      FILING DATE:  06-JUN-1995
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/981,044
;      FILING DATE:  24-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11197
;      FILING DATE:  22-NOV-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/6
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  168:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
US-08-469-319A-168

  Query Match             12.5%;  Score 9.6;  DB 1;  Length 16;
  Best Local Similarity   75.0%;  Pred. No. 44;
```

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  Matches   12;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGTTAGG 76
              | ||||| | || |||
Db          1 TGAACCATATGTCAGG 16


RESULT 58
US-08-471-039-29
; Sequence 29, Application US/08471039
; Patent No. 6017523
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Polazzi, Joseph O.
;    APPLICANT:  Thomas, John W.
;    TITLE OF INVENTION:  Interleukin-3 (IL-3) Mutant Polypeptides
;    NUMBER OF SEQUENCES:  549
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/471,039
;      FILING DATE:  06-JUN-1995
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/981,044
;      FILING DATE:  24-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11198
;      FILING DATE:  22-NOV-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/5
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  29:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
US-08-471-039-29

  Query Match             12.5%;  Score 9.6;  DB 1;  Length 16;
  Best Local Similarity   75.0%;  Pred. No. 44;
  Matches   12;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGTTAGG 76
              | ||||| | || |||
Db          1 TGAACCATATGTCAGG 16


RESULT 59
US-08-764-114-29
; Sequence 29, Application US/08764114
; Patent No. 6440407
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Thomas, John W.
;    TITLE OF INVENTION:  Methods of Ex-vivo Expansion of
;    TITLE OF INVENTION:  Hematopoietic Cells Using Interleukin-3 (IL-3) Multiple
;    TITLE OF INVENTION:  Mutation Polypeptides
;    NUMBER OF SEQUENCES:  415
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/764,114
;      FILING DATE:  09-DEC-1996
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/981,044
;      FILING DATE:  24-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11197
;      FILING DATE:  22-NOV-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/411,795
;      FILING DATE:  04-JUN-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/10
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  29:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
US-08-764-114-29

  Query Match             12.5%;  Score 9.6;  DB 1;  Length 16;
  Best Local Similarity   75.0%;  Pred. No. 44;
  Matches   12;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGTTAGG 76
              | ||||| | || |||
Db          1 TGAACCATATGTCAGG 16


RESULT 60
US-08-764-114-168
; Sequence 168, Application US/08764114
```

```
; Patent No. 6440407
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Thomas, John W.
;    TITLE OF INVENTION:  Methods of Ex-vivo Expansion of
;    TITLE OF INVENTION:  Hematopoietic Cells Using Interleukin-3 (IL-3) Multiple
;    TITLE OF INVENTION:  Mutation Polypeptides
;    NUMBER OF SEQUENCES:  415
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/764,114
;      FILING DATE:  09-DEC-1996
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/981,044
;      FILING DATE:  24-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11197
;      FILING DATE:  22-NOV-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/411,795
;      FILING DATE:  04-JUN-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/10
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  168:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
US-08-764-114-168

  Query Match             12.5%;  Score 9.6;  DB 1;  Length 16;
  Best Local Similarity   75.0%;  Pred. No. 44;
  Matches   12;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGTTAGG 76
              | ||||| | || |||
Db          1 TGAACCATATGTCAGG 16


RESULT 61
US-08-469-419-29
; Sequence 29, Application US/08469419
; Patent No. 6458931
;   GENERAL INFORMATION:
;        APPLICANT: Abrams, Mark A.
;                   Bauer, S. C.
;                   Braford-Goldberg, Sarah R.
;                   Caparon, Maire H.
;                   Easton, Alan M.
;                   Klein, Barbara K.
;                   McKearn, John P.
;                   Olins, Peter O.
;                   Paik, Kumnan
;                   Thomas, John W.
;        TITLE OF INVENTION: Interleukin-3 (IL-3) Multiple Mutation
;                            Polypeptides
;        NUMBER OF SEQUENCES: 415
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Dennis A. Bennett, G.D. Searle & Co.,
;                        Corporate Patent Dept.
;             STREET: P. O. Box 5110
;             CITY: Chicago
;             STATE: Illinois
;             COUNTRY: USA
;             ZIP: 60680
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.25
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/08/469,419
;             FILING DATE: 06-Jun-1995
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 08/411,795
;             FILING DATE: <Unknown>
;             APPLICATION NUMBER: PCT/US93/11197
;             FILING DATE: 22-NOV-1993
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Bennett, Dennis A.
;             REGISTRATION NUMBER: 34,547
;             REFERENCE/DOCKET NUMBER: C2713/2
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (708)470-6501
;             TELEFAX: (708)470-6881
;   INFORMATION FOR SEQ ID NO: 29:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 16 base pairs
;             TYPE: nucleic acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: DNA (synthetic)
;        SEQUENCE DESCRIPTION: SEQ ID NO: 29:
US-08-469-419-29

  Query Match             12.5%;  Score 9.6;  DB 1;  Length 16;
  Best Local Similarity   75.0%;  Pred. No. 44;
  Matches   12;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGTTAGG 76
              | ||||| | || |||
Db          1 TGAACCATATGTCAGG 16


RESULT 62
US-08-469-419-168
; Sequence 168, Application US/08469419
; Patent No. 6458931
;   GENERAL INFORMATION:
;        APPLICANT: Abrams, Mark A.
;                   Bauer, S. C.
;                   Braford-Goldberg, Sarah R.
;                   Caparon, Maire H.
;                   Easton, Alan M.
;                   Klein, Barbara K.
;                   McKearn, John P.
;                   Olins, Peter O.
```

```
;                 Paik, Kumnan
;                 Thomas, John W.
;       TITLE OF INVENTION: Interleukin-3 (IL-3) Multiple Mutation
;                           Polypeptides
;       NUMBER OF SEQUENCES: 415
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: Dennis A. Bennett, G.D. Searle & Co.,
;                       Corporate Patent Dept.
;            STREET: P. O. Box 5110
;            CITY: Chicago
;            STATE: Illinois
;            COUNTRY: USA
;            ZIP: 60680
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Floppy disk
;            COMPUTER: IBM PC compatible
;            OPERATING SYSTEM: PC-DOS/MS-DOS
;            SOFTWARE: PatentIn Release #1.0, Version #1.25
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/08/469,419
;            FILING DATE: 06-Jun-1995
;            CLASSIFICATION: <Unknown>
;       PRIOR APPLICATION DATA:
;            APPLICATION NUMBER: 08/411,795
;            FILING DATE: <Unknown>
;            APPLICATION NUMBER: PCT/US93/11197
;            FILING DATE: 22-NOV-1993
;       ATTORNEY/AGENT INFORMATION:
;            NAME: Bennett, Dennis A.
;            REGISTRATION NUMBER: 34,547
;            REFERENCE/DOCKET NUMBER: C2713/2
;       TELECOMMUNICATION INFORMATION:
;            TELEPHONE: (708)470-6501
;            TELEFAX: (708)470-6881
;   INFORMATION FOR SEQ ID NO: 168:
;       SEQUENCE CHARACTERISTICS:
;            LENGTH: 16 base pairs
;            TYPE: nucleic acid
;            STRANDEDNESS: single
;            TOPOLOGY: linear
;       MOLECULE TYPE: DNA (synthetic)
;       SEQUENCE DESCRIPTION: SEQ ID NO: 168:
US-08-469-419-168

  Query Match             12.5%;  Score 9.6;  DB 1;  Length 16;
  Best Local Similarity   75.0%;  Pred. No. 44;
  Matches   12;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGTTAGG 76
              | ||||| | || |||
Db          1 TGAACCATATGTCAGG 16


RESULT 63
US-08-559-390-29
; Sequence 29, Application US/08559390
; Patent No. 6479261
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Polazzi, Joseph O.
;    APPLICANT:  Thomas, John W.
;    TITLE OF INVENTION:  Interleukin-3 (IL-3) Mutant Polypeptides
;    NUMBER OF SEQUENCES:  549
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/559,390
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/411,796
;      FILING DATE:
;      APPLICATION NUMBER:  US 07/981044
;      FILING DATE:  24-NOV-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11198
;      FILING DATE:  22-NOV-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  29:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
US-08-559-390-29

  Query Match             12.5%;  Score 9.6;  DB 1;  Length 16;
  Best Local Similarity   75.0%;  Pred. No. 44;
  Matches   12;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGTTAGG 76
              | ||||| | || |||
Db          1 TGAACCATATGTCAGG 16


RESULT 64
PCT-US93-11198-29
; Sequence 29, Application PC/TUS9311198
;  GENERAL INFORMATION:
;    APPLICANT:  Abrams, Mark A.
;    APPLICANT:  Bauer, S. C.
;    APPLICANT:  Braford-Goldberg, Sarah R.
;    APPLICANT:  Caparon, Maire H.
;    APPLICANT:  Easton, Alan M.
;    APPLICANT:  Klein, Barbara K.
;    APPLICANT:  McKearn, John P.
;    APPLICANT:  Olins, Peter O.
;    APPLICANT:  Paik, Kumnan
;    APPLICANT:  Polazzi, Joseph O.
;    APPLICANT:  Thomas, John W.
;    TITLE OF INVENTION:  Interleukin-3 (IL-3) Mutant Polypeptides
;    NUMBER OF SEQUENCES:  549
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dennis A. Bennett, G.D. Searle & Co.,
;      ADDRESSEE:  Corporate Patent Dept.
;      STREET:  P. O. Box 5110
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60680
```

```
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US93/11198
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/981044
;      FILING DATE:  24-NOV-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bennett, Dennis A.
;      REGISTRATION NUMBER:  34,547
;      REFERENCE/DOCKET NUMBER:  C2713/1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (708)470-6501
;      TELEFAX:  (708)470-6881
;  INFORMATION FOR SEQ ID NO:  29:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  16 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (synthetic)
PCT-US93-11198-29

  Query Match             12.5%;  Score 9.6;  DB 1;  Length 16;
  Best Local Similarity   75.0%;  Pred. No. 44;
  Matches   12;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGTTAGG 76
              | ||||| | || |||
Db          1 TGAACCATATGTCAGG 16


RESULT 65
US-09-249-155A-245
; Sequence 245, Application US/09249155A
; Patent No. 6538173
; GENERAL INFORMATION:
;  APPLICANT:  Heber-Katz, Ellen
;  TITLE OF INVENTION:  Compositions and Methods for Wound
;  TITLE OF INVENTION:  Healing
;  FILE REFERENCE:  00486.78503
;  CURRENT APPLICATION NUMBER: US/09/249,155A
;  CURRENT FILING DATE:  1999-02-12
;  PRIOR APPLICATION NUMBER:  US 60/074,737
;  PRIOR FILING DATE:  1998-02-13
;  PRIOR APPLICATION NUMBER:  US 60/097,937
;  PRIOR FILING DATE:  1998-08-26
;  PRIOR APPLICATION NUMBER:  US 60/102,051
;  PRIOR FILING DATE:  1998-09-28
;  NUMBER OF SEQ ID NOS:  346
;  SOFTWARE:  FastSEQ for Windows Version 4.0
; SEQ ID NO 245
;   LENGTH: 11
;   TYPE: DNA
;   ORGANISM: Mus musculus
US-09-249-155A-245

  Query Match             12.2%;  Score 9.4;  DB 1;  Length 11;
  Best Local Similarity   90.9%;  Pred. No. 15;
  Matches   10;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          8 AACTGGTTCAA 18
              ||| |||||||
Db          1 AACAGGTTCAA 11


RESULT 66
US-09-281-418-129/c
; Sequence 129, Application US/09281418
; Patent No. 6287769
; GENERAL INFORMATION:
;  APPLICANT: Inoue, Takakazu
;  TITLE OF INVENTION: Method of Amplifying DNA Fragment, Apparatus for Amplifying DNA F
;  TITLE OF INVENTION: agment, Method of Assaying Microorganisms, Method of Analyzing Mi
;  TITLE OF INVENTION: nisms and Method of Assaying Contaminant
;  FILE REFERENCE: 9982-7
;  CURRENT APPLICATION NUMBER: US/09/281,418
;  CURRENT FILING DATE: 1999-03-30
;  EARLIER APPLICATION NUMBER: JP/1998/87651
;  EARLIER FILING DATE: 1998-03-31
;  EARLIER APPLICATION NUMBER: JP/1999/69694
;  EARLIER FILING DATE: 1999-03-16
;  NUMBER OF SEQ ID NOS: 216
; SEQ ID NO 129
;   LENGTH: 12
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Primer
US-09-281-418-129

  Query Match             12.2%;  Score 9.4;  DB 1;  Length 12;
  Best Local Similarity   90.9%;  Pred. No. 20;
  Matches   10;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          10 CTGGTTCAAGT 20
               |||||| ||||
Db          12 CTGGTTGAAGT 2


RESULT 67
US-08-258-553-3/c
; Sequence 3, Application US/08258553
; Patent No. 5567585
;  GENERAL INFORMATION:
;    APPLICANT:  Caetano-Anolles, Gustavo
;    APPLICANT:  Bassam, Brant J.
;    APPLICANT:  Gresshoff, Peter M.
;    TITLE OF INVENTION:  METHOD AND KIT FOR SILVER STAINING,
;    TITLE OF INVENTION:  DEVELOPING AN IMAGE AND VISUALIZING BIOLOGICAL MATERIALS
;    NUMBER OF SEQUENCES:  7
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Weiser & Associates
;      STREET:  230 South Fifteenth Street, Suite 500
;      CITY:  Philadelphia
;      STATE:  Pennsylvania
;      COUNTRY:  U.S.A.
;      ZIP:  19102
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/258,553
;      FILING DATE:  09-JUN-1994
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/676,869
;      FILING DATE:  28-MAR-1991
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/139,459
;      FILING DATE:  20-OCT-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Weiser, Gerard J.
;      REGISTRATION NUMBER:  19,763
;      REFERENCE/DOCKET NUMBER:  372.5910P
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  215-875-8383
;      TELEFAX:  215-875-8394
;  INFORMATION FOR SEQ ID NO:  3:
```

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;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  13 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-258-553-3

  Query Match             12.2%;  Score 9.4;  DB 1;  Length 13;
  Best Local Similarity   90.9%;  Pred. No. 26;
  Matches   10;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         22 GTTCGCTTCGC 32
              | ||||||||||
Db         11 GCTCGCTTCGC 1


RESULT 68
US-08-489-269-5/c
; Sequence 5, Application US/08489269
; Patent No. 5962221
;  GENERAL INFORMATION:
;    APPLICANT:  Caetano-Anolles, Gustavo
;    TITLE OF INVENTION:  OLIGONUCLEOTIDE CONSTRUCTS AND METHODS
;    TITLE OF INVENTION:  FOR THE GENERATION OF SEQUENCE SIGNATURES FROM NUCLEIC
;    TITLE OF INVENTION:  ACIDS
;    NUMBER OF SEQUENCES:  7
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  WEISER & ASSOCIATES
;      STREET:  230 South Fifteenth Street, Suite 500
;      CITY:  Philadelphia
;      STATE:  PA
;      COUNTRY:  USA
;      ZIP:  19102
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/489,269
;      FILING DATE:  09-JUN-1995
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Weiser, Gerard J.
;      REGISTRATION NUMBER:  19,763
;      REFERENCE/DOCKET NUMBER:  372.6176P
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  215-875-8383
;      TELEFAX:  215-875-8394
;  INFORMATION FOR SEQ ID NO:  5:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  13 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA
US-08-489-269-5

  Query Match             12.2%;  Score 9.4;  DB 1;  Length 13;
  Best Local Similarity   90.9%;  Pred. No. 26;
  Matches   10;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         22 GTTCGCTTCGC 32
              | ||||||||||
Db         11 GCTCGCTTCGC 1


RESULT 69
US-08-139-459-2/c
; Sequence 2, Application US/08139459
; Patent No. 6074818
;  GENERAL INFORMATION:
;    APPLICANT:  Caetano-Anolles, Gustavo
;    APPLICANT:  Bassam, Brant
;    APPLICANT:  Gresshoff, Peter
;    TITLE OF INVENTION:  Fingerprinting of Nucleic Acids,
;    TITLE OF INVENTION:  Products and Methods
;    NUMBER OF SEQUENCES:  13
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Weiser & Associates
;      STREET:  230 South Fifteenth Street, Suite 500
;      CITY:  Philadelphia
;      STATE:  Pennsylvania
;      COUNTRY:  U.S.A.
;      ZIP:  19102
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/139,459
;      FILING DATE:  20-OCT-1993
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Weiser, Gerard J.
;      REGISTRATION NUMBER:  19,763
;      REFERENCE/DOCKET NUMBER:  377.5946P
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  215-875-8383
;      TELEFAX:  215-875-8394
;      TELEX:  834809 WEISTAK
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  13 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-139-459-2

  Query Match             12.2%;  Score 9.4;  DB 1;  Length 13;
  Best Local Similarity   90.9%;  Pred. No. 26;
  Matches   10;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         22 GTTCGCTTCGC 32
              | ||||||||||
Db         11 GCTCGCTTCGC 1


RESULT 70
US-09-216-584-31
; Sequence 31, Application US/09216584
; Patent No. 6548657
; GENERAL INFORMATION:
;  APPLICANT: Alex, Burgin
;  APPLICANT:  Leonid, Beigelman
;  APPLICANT:  Laurent, Bellon
;  TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
;  FILE REFERENCE: MBHB00-853-A; RPI 237/167
;  CURRENT APPLICATION NUMBER: US/09/216,584
;  CURRENT FILING DATE:  1998-12-18
;  PRIOR APPLICATION NUMBER: 09/094,381
;  PRIOR FILING DATE: 1998-06-09
;  PRIOR APPLICATION NUMBER: 60/068,212
;  PRIOR FILING DATE: 1997-12-19
;  PRIOR APPLICATION NUMBER: 60/049,002
;  PRIOR FILING DATE: 1997-06-09
;  NUMBER OF SEQ ID NOS: 52
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 31
;   LENGTH: 13
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   OTHER INFORMATION: Accessible site within UPA transcript
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```
US-09-216-584-31

  Query Match             12.2%;  Score 9.4;  DB 1;  Length 13;
  Best Local Similarity   90.9%;  Pred. No. 26;
  Matches   10;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         45 GGCTAAAGCCG 55
              | |||||||||
Db          3 GCCTAAAGCCG 13


RESULT 71
US-09-914-259-132
; Sequence 132, Application US/09914259
; Patent No. 6495336
; GENERAL INFORMATION:
;  APPLICANT: Makowski, Lee
;  APPLICANT:  Hyman, Paul
;  APPLICANT:  Williams, Mark
;  TITLE OF INVENTION: STAGED ASSEMBLY OF NANOSTRUCTURES
;  FILE REFERENCE: 8471-010-999
;  CURRENT APPLICATION NUMBER: US/09/914,259
;  CURRENT FILING DATE:  2000-11-21
;  NUMBER OF SEQ ID NOS: 180
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 132
;   LENGTH: 10
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Theoretical sequence designed to show proper and improper joining
;   OTHER INFORMATION: elements
US-09-914-259-132

  Query Match             11.7%;  Score 9;  DB 1;  Length 10;
  Best Local Similarity   100.0%;  Pred. No. 13;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         12 GGTTCAAGT 20
              |||||||||
Db          1 GGTTCAAGT 9


RESULT 72
US-08-894-784-3/c
; Sequence 3, Application US/08894784
; Patent No. 6005095
;  GENERAL INFORMATION:
;    APPLICANT:  Capaccioli, Sergio
;    APPLICANT:  Morelli, Susanna
;    APPLICANT:  Nicolin, Angelo
;    TITLE OF INVENTION:  ANTISENSE TRANSCRIPT ASSOCIATED TO TUMOR
;    TITLE OF INVENTION:  CELLS HAVING A T(14:18) TRANSLOCATION AND
;    TITLE OF INVENTION:  OLIGODEOXYNUCLEOTIDES USEFUL IN THE DIAGNOSIS AND
;    TITLE OF INVENTION:  TREATMENT OF SAID TUMOR CELLS
;    NUMBER OF SEQUENCES:  49
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  FINNEGAN, HENDERSON, FARABOW, GARRETT &
;      ADDRESSEE:  DUNNER, LLP
;      STREET:  1300 I Street, NW
;      CITY:  Washington
;      STATE:  DC
;      COUNTRY:  USA
;      ZIP:  20005-3315
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/894,784
;      FILING DATE:  15-DEC-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/EP96/00852
;      FILING DATE:  02-MAR-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  IL MI95 A 000420
;      FILING DATE:  03-MAR-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Paul, John C.
;      REGISTRATION NUMBER:  30,413
;      REFERENCE/DOCKET NUMBER:  05999.0005-00000
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-408-4000
;      TELEFAX:  202-408-4400
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  11 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA
US-08-894-784-3

  Query Match             11.7%;  Score 9;  DB 1;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 18;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         33 TCACTCGGG 41
              |||||||||
Db          9 TCACTCGGG 1


RESULT 73
US-08-544-381B-207
; Sequence 207, Application US/08544381B
; Patent No. 6027880
;  GENERAL INFORMATION:
;    APPLICANT:  Cronin, Maureen T.
;    APPLICANT:  Miyada, Charles Garrett
;    APPLICANT:  Hubbell, Earl A.
;    APPLICANT:  Chee, Mark
;    APPLICANT:  Fodor, Stephen P.A.
;    APPLICANT:  Huang, Xiaohua C.
;    APPLICANT:  Lipshutz, Robert J.
;    APPLICANT:  Lobban, Peter E.
;    APPLICANT:  Morris, Macdonald S.
;    APPLICANT:  Sheldon, Edward L.
;    TITLE OF INVENTION:  Arrays of Nucleic Acid Probes for
;    TITLE OF INVENTION:  Detecting Cystic Fibrosis
;    NUMBER OF SEQUENCES:  250
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Townsend and Townsend and Crew LLP
;      STREET:  Two Embarcadero Center, 8th Floor
;      CITY:  San Francisco
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94111
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/544,381B
;      FILING DATE:  10-OCT-1995
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/510,521
;      FILING DATE:  02-AUG-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  PCT/US94/12305
;      FILING DATE:  26-OCT-1994
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/284,064
;      FILING DATE:  02-AUG-1994
```

```
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/143,312
;      FILING DATE:  26-OCT-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Liebeschuetz, Joe
;      REGISTRATION NUMBER:  37,505
;      REFERENCE/DOCKET NUMBER:  018547-004130US
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-576-0200
;      TELEFAX:  415-576-0300
;  INFORMATION FOR SEQ ID NO:  207:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  11 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (oligonucleotide)
US-08-544-381B-207

  Query Match             11.7%;  Score 9;  DB 1;  Length 11;
  Best Local Similarity   90.0%;  Pred. No. 18;
  Matches    9;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         55 GGCCCCTTAA 64
               || |||||||
Db          2 GGNCCCTTAA 11


RESULT 74
US-08-778-794A-18
; Sequence 18, Application US/08778794A
; Patent No. 6309823
;  GENERAL INFORMATION:
;    APPLICANT:  Cronin, Maureen T.
;    APPLICANT:  Miyada, Charles Garrett
;    APPLICANT:  Hubbell, Earl A.
;    APPLICANT:  Chee, Mark
;    APPLICANT:  Fodor, Stephen P.A.
;    APPLICANT:  Huang, Xiaohua C.
;    APPLICANT:  Lipshutz, Robert J.
;    APPLICANT:  Lobban, Peter E.
;    APPLICANT:  Morris, MacDonald S.
;    APPLICANT:  Sheldon, Edward L.
;    TITLE OF INVENTION:  Arrays of Nucleic Acid Probes
;    TITLE OF INVENTION:  for Analyzing Biotransformation Genes
;    NUMBER OF SEQUENCES:  156
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Townsend and Townsend and Crew LLP
;      STREET:  Two Embarcadero Center, Eighth Floor
;      CITY:  San Francisco
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94111-3834
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/778,794A
;      FILING DATE:  03-JAN-1997
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/143,312
;      FILING DATE:  26-OCT-1993
;      APPLICATION NUMBER:  US 08/284,064
;      FILING DATE:  02-AUG-1994
;      APPLICATION NUMBER:  WO PCT/US94/12305
;      FILING DATE:  26-OCT-1994
;      APPLICATION NUMBER:  US 08/510,521
;      FILING DATE:  02-AUG-1995
;      APPLICATION NUMBER:  US 08/544,381
;      FILING DATE:  10-OCT-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Liebeschuetz, Joe
;      REGISTRATION NUMBER:  37,505
;      REFERENCE/DOCKET NUMBER:  018547-015700US
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (415) 576-0200
;      TELEFAX:  (415) 576-0200
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  18:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  11 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA
US-08-778-794A-18

  Query Match             11.7%;  Score 9;  DB 1;  Length 11;
  Best Local Similarity   90.0%;  Pred. No. 18;
  Matches    9;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         55 GGCCCCTTAA 64
               || |||||||
Db          2 GGNCCCTTAA 11


RESULT 75
US-09-341-399-18
; Sequence 18, Application US/09341399
; Patent No. 6468744
;  GENERAL INFORMATION:
;       APPLICANT: Cronin, Maureen T.
;                  Sheldon, Edward L.
;                  Miyada, Charles G.
;                  Hubbell, Earl A.
;                  Chee, Mark
;                  Fodor, Stephen P.A.
;                  Huang, Xiaohua C.
;                  Lipshutz, Robert J.
;                  Lobban, Peter E.
;                  Morris, MacDonald S.
;       TITLE OF INVENTION: Analysis of Genetic Polymorphisms and
;                           Gene Copy Number
;       NUMBER OF SEQUENCES: 51
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: Townsend and Townsend and Crew LLP
;            STREET: Two Embarcadero Center, Eighth Floor
;            CITY: San Francisco
;            STATE: California
;            COUNTRY: USA
;            ZIP: 94111-3834
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Floppy disk
;            COMPUTER: IBM PC compatible
;            OPERATING SYSTEM: PC-DOS/MS-DOS
;            SOFTWARE: PatentIn Release #1.0, Version #1.30
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/09/341,399
;            FILING DATE: 17-No. 6468744-1999
;            CLASSIFICATION: <Unknown>
;       PRIOR APPLICATION DATA:
;            APPLICATION NUMBER: US 08/143,312
;            FILING DATE: 26-OCT-1993
;            APPLICATION NUMBER: US 08/284,064
;            FILING DATE: 02-AUG-1994
;            APPLICATION NUMBER: WO PCT/US94/12305
;            FILING DATE: 26-OCT-1994
;            APPLICATION NUMBER: US 08/510,521
;            FILING DATE: 02-AUG-1995
;            APPLICATION NUMBER: US 08/544,381
;            FILING DATE: 10-OCT-1995
;            APPLICATION NUMBER: US 08/778,794
;            FILING DATE: 03-JAN-1997
```

```
;             APPLICATION NUMBER: WO PCT/US98/06414
;             FILING DATE: 02-JAN-1998
;       ATTORNEY/AGENT INFORMATION:
;             NAME: Liebeschuetz, Joe
;             REGISTRATION NUMBER: 37,505
;             REFERENCE/DOCKET NUMBER: 018547-015710US
;       TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (415) 576-0200
;             TELEFAX: (415) 576-0300
;   INFORMATION FOR SEQ ID NO: 18:
;       SEQUENCE CHARACTERISTICS:
;             LENGTH: 11 base pairs
;             TYPE: nucleic acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;       MOLECULE TYPE: DNA
;       SEQUENCE DESCRIPTION: SEQ ID NO: 18:
US-09-341-399-18

  Query Match             11.7%;  Score 9;  DB 1;  Length 11;
  Best Local Similarity   90.0%;  Pred. No. 18;
  Matches    9;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         55 GGCCCCTTAA 64
              || |||||||
Db          2 GGNCCCTTAA 11


RESULT 76
US-09-046-894-17
; Sequence 17, Application US/09046894
; Patent No. 6190857
;  GENERAL INFORMATION:
;    APPLICANT:  Ralph, David
;    APPLICANT:  An, Gang
;    APPLICANT:  O'Hara, Mark S.
;    APPLICANT:  Veltri, Robert
;    TITLE OF INVENTION:  DIAGNOSIS OF DISEASE STATE USING mRNA
;    TITLE OF INVENTION:  PROFILES IN PERIPHERAL LEUKOCYTES
;    NUMBER OF SEQUENCES:  55
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Arnold, White & Durkee
;      STREET:  P.O. Box 4433
;      CITY:  Houston
;      STATE:  Texas
;      COUNTRY:  USA
;      ZIP:  77210
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/046,894
;      FILING DATE:  Concurrently Herewith
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/041,576
;      FILING DATE:  24-MAR-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Nakashima, Richard A.
;      REGISTRATION NUMBER:  P-42,023
;      REFERENCE/DOCKET NUMBER:  UROC:014
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (512) 418-3000
;      TELEFAX:  (512) 474-7577
;  INFORMATION FOR SEQ ID NO:  17:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  12 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-09-046-894-17

  Query Match             11.7%;  Score 9;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          5 AACAACTGG 13
              |||||||||
Db          1 AACAACTGG 9


RESULT 77
US-09-574-117A-2/c
; Sequence 2, Application US/09574117A
; Patent No. 6620584
; GENERAL INFORMATION:
;  APPLICANT: Chee, Mark
;  APPLICANT:  Walt, David R.
;  TITLE OF INVENTION: Combinatorial Decoding of Random Nucleic Acid Arrays
;  FILE REFERENCE: A-67498-1
;  CURRENT APPLICATION NUMBER: US/09/574,117A
;  CURRENT FILING DATE:  2000-05-19
;  PRIOR APPLICATION NUMBER: US 60/135,052
;  PRIOR FILING DATE: 1999-05-20
;  NUMBER OF SEQ ID NOS: 39
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
;   LENGTH: 12
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: decoding probes.
US-09-574-117A-2

  Query Match             11.7%;  Score 9;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches    9;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         37 TCGGGACCG 45
              |||||||||
Db         10 TCGGGACCG 2


RESULT 78
US-08-388-171-7/c
; Sequence 7, Application US/08388171
; Patent No. 5622824
;  GENERAL INFORMATION:
;    APPLICANT:  KVSTER, HERBERT
;    TITLE OF INVENTION:  DNA SEQUENCING BY MASS SPECTROMETRY VIA
;    TITLE OF INVENTION:  EXONUCLEASE DEGRADATION
;    NUMBER OF SEQUENCES:  8
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  LAHIVE & COCKFIELD
;      STREET:  60 STATE STREET, suite 510
;      CITY:  BOSTON
;      STATE:  MASSACHUSETTS
;      COUNTRY:  USA
;      ZIP:  02109
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  ASCII text
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/388,171
;      FILING DATE:
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/034,738
;      FILING DATE:  19 March 1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  DeConti, Giulio A.
;      REGISTRATION NUMBER:  31,503
```

```
;      REFERENCE/DOCKET NUMBER:  HKI-005
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (617) 227-7400
;      TELEFAX:  (617) 227-5941
;  INFORMATION FOR SEQ ID NO:  7:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  12 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  other nucleic acid
;    HYPOTHETICAL:  YES
US-08-388-171-7

  Query Match             11.4%;  Score 8.8;  DB 1;  Length 12;
  Best Local Similarity   83.3%;  Pred. No. 27;
  Matches   10;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         53 CCGGCCCCTTAA 64
              ||||| |||||
Db         12 CCGGCGACTTAA 1


RESULT 79
US-08-441-887A-205/c
; Sequence 205, Application US/08441887A
; Patent No. 5837832
;  GENERAL INFORMATION:
;    APPLICANT:  Chee, Mark
;    APPLICANT:  Cronin, Maureen T.
;    APPLICANT:  Fodor, Stephen P.A.
;    APPLICANT:  Huang, Xiaohua X.
;    APPLICANT:  Hubbell, Earl A.
;    APPLICANT:  Lipshutz, Robert J.
;    APPLICANT:  Lobban, Peter E.
;    APPLICANT:  Morris, Macdonald S.
;    APPLICANT:  Sheldon, Edward L.
;    TITLE OF INVENTION:  Arrays of Nucleic Acid Probes on
;    TITLE OF INVENTION:  Biological Chips
;    NUMBER OF SEQUENCES:  360
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Townsend and Townsend and Crew LLP
;      STREET:  Two Embarcadero Center, 8th Floor
;      CITY:  San Francisco
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94111
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/441,887A
;      FILING DATE:  16-MAY-1995
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/143,312
;      FILING DATE:  26-OCT-1993
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/082,937
;      FILING DATE:  25-JUN-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Liebeschuetz, Joseph O.
;      REGISTRATION NUMBER:  37,505
;      REFERENCE/DOCKET NUMBER:  018547-004160US
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  650-326-2400
;      TELEFAX:  650-326-2422
;  INFORMATION FOR SEQ ID NO:  205:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  12 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (probe)
US-08-441-887A-205

  Query Match             11.4%;  Score 8.8;  DB 1;  Length 12;
  Best Local Similarity   83.3%;  Pred. No. 27;
  Matches   10;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCA 67
              | ||||| ||||
Db         12 GTCCCTTGACCA 1


RESULT 80
US-08-454-527-7/c
; Sequence 7, Application US/08454527
; Patent No. 5851765
;  GENERAL INFORMATION:
;    APPLICANT:  KVSTER, HERBERT
;    TITLE OF INVENTION:  DNA SEQUENCING BY MASS SPECTROMETRY VIA
;    TITLE OF INVENTION:  EXONUCLEASE DEGRADATION
;    NUMBER OF SEQUENCES:  8
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  LAHIVE & COCKFIELD
;      STREET:  60 STATE STREET, suite 510
;      CITY:  BOSTON
;      STATE:  MASSACHUSETTS
;      COUNTRY:  USA
;      ZIP:  02109
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  ASCII text
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/454,527
;      FILING DATE:  30-MAY-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/388,171
;      FILING DATE:  10-FEB-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/034,738
;      FILING DATE:  19-MAR-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  DeConti, Giulio A.
;      REGISTRATION NUMBER:  31,503
;      REFERENCE/DOCKET NUMBER:  SQI-005CND1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (617) 227-7400
;      TELEFAX:  (617) 227-5941
;  INFORMATION FOR SEQ ID NO:  7:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  12 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  other nucleic acid
;    HYPOTHETICAL:  YES
US-08-454-527-7

  Query Match             11.4%;  Score 8.8;  DB 1;  Length 12;
  Best Local Similarity   83.3%;  Pred. No. 27;
  Matches   10;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         53 CCGGCCCCTTAA 64
              ||||| |||||
Db         12 CCGGCGACTTAA 1


RESULT 81
US-08-173-489C-252
```

```
; Sequence 252, Application US/08173489C
; Patent No. 5861244
;  GENERAL INFORMATION:
;    APPLICANT:  WANG, C. -G.
;    APPLICANT:  HEPBURN, A. G.
;    TITLE OF INVENTION:  GENETIC SEQUENCE ASSAY USING DNA
;    TITLE OF INVENTION:  TRIPLE-STRAND FORMATION.
;    NUMBER OF SEQUENCES:  365
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  PROFILE DIAGNOSTIC SCIENCES, INC.,
;      STREET:  510 EAST 73RD STREET,
;      CITY:  NEW YORK
;      STATE:  NEW YORK
;      COUNTRY:  USA
;      ZIP:  10021.
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5 inch, 1.44Mb storage
;      COMPUTER:  IBM PC/XT/AT
;      OPERATING SYSTEM:  MS-DOS version 6.2
;      SOFTWARE:  Wordperfect Version 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/173,489C
;      FILING DATE:  22 DEC 1993
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/968,436
;      FILING DATE:  29 OCT 1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Handelman, Joseph H.
;      REGISTRATION NUMBER:  26,179
;      REFERENCE/DOCKET NUMBER:  U9518-6
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (attorney) (212) 708-1880
;      TELEFAX:  (attorney) (212) 246-8959
;  INFORMATION FOR SEQ ID NO:  252:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  12 bases
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single stranded
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  other nucleic acid
;      DESCRIPTION:  third strand derived from M. luteus
;      DESCRIPTION:  23s region in Seq ID No. 5861244251
;    HYPOTHETICAL:  yes
;    ANTI-SENSE:  no
;    PUBLICATION INFORMATION:
;      RELEVANT RESIDUES IN SEQ ID NO:  252 :FROM 1 TO 12
US-08-173-489C-252

  Query Match             11.4%;  Score 8.8;  DB 1;  Length 12;
  Best Local Similarity   83.3%;  Pred. No. 27;
  Matches   10;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         25 CGCTTCGCTCAC 36
              | ||||||||| |
Db          1 CCCTTCGCTCTC 12


RESULT 82
US-08-880-829-3/c
; Sequence 3, Application US/08880829
; Patent No. 5925559
;  GENERAL INFORMATION:
;    APPLICANT:  Collins, John
;    APPLICANT:  Roettgen, Peter
;    TITLE OF INVENTION:  A Collection of Phagemids, A
;    TITLE OF INVENTION:  Collection of Escherichia Coli
;    TITLE OF INVENTION:  Cells Carrying The Phagemids, A
;    TITLE OF INVENTION:  Collection of Phagemid Particles
;    TITLE OF INVENTION:  Produced From Said Collection
;    TITLE OF INVENTION:  And Phagemid Particles
;    NUMBER OF SEQUENCES:  21
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Joseph T. Eisele
;      ADDRESSEE:  Kane, Dalsimer, Sullivan, Kurucz,
;      ADDRESSEE:  Levy, Eisele and Richard
;      STREET:  711 Third Avenue
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  U.S.A.
;      ZIP:  10017-4059
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3-1/2" DISKETTE
;      COMPUTER:  IBM-XT COMPATIBLE
;      OPERATING SYSTEM:  DOS 3.3:
;      SOFTWARE:  WORDPERFECT 5.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/880,829
;      FILING DATE:  23-JUN-1997
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/458,668
;      FILING DATE:  06/02/95
;      APPLICATION NUMBER:  German EP 94 108 689.4
;      FILING DATE:  06/07/94
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  EISELE, JOSEPH T.
;      REGISTRATION NUMBER:  25,331
;      REFERENCE/DOCKET NUMBER:  2727-77
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 687-6000
;      TELEFAX:  (212) 682-3485
;      TELEX:  (212) 426767
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  12 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single strand
;      TOPOLOGY:  linear
;    MOLECULE TYPE:
;    HYPOTHETICAL:
;    ANTI-SENSE:
;    FRAGMENT TYPE:
;    ORIGINAL SOURCE:
;      ORGANISM:
;      STRAIN:
;      INDIVIDUAL ISOLATE:
;      DEVELOPMENTAL STAGE:
;      HAPLOTYPE:
;      TISSUE TYPE:
;      CELL TYPE:
;      CELL LINE:
;      ORGANELLE:
;    IMMEDIATE SOURCE:
;      CLONE:
US-08-880-829-3

  Query Match             11.4%;  Score 8.8;  DB 1;  Length 12;
  Best Local Similarity   83.3%;  Pred. No. 27;
  Matches   10;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         13 GTTCAAGTCGTT 24
              ||||| |||||
Db         12 GTTCAGTTCGTT 1


RESULT 83
US-08-771-602D-31/c
; Sequence 31, Application US/08771602D
; Patent No. 5976795
;  GENERAL INFORMATION:
;    APPLICANT:  Voytas, Daniel F.
;    APPLICANT:  Zou, Sige
;    TITLE OF INVENTION:  Retrotransposon and Methods
;    NUMBER OF SEQUENCES:  51
;    CORRESPONDENCE ADDRESS:
```

```
;      ADDRESSEE:  Greenlee, Winner and Sullivan, P.C.
;      STREET:  5370 Manhattan Circle, Suite 201
;      CITY:  Boulder
;      STATE:  Colorado
;      COUNTRY:  USA
;      ZIP:  80303
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/771,602D
;      FILING DATE:  20-DEC-1996
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/010,869
;      FILING DATE:  31-JAN-1996
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Ferber, Donna M.
;      REGISTRATION NUMBER:  33,878
;      REFERENCE/DOCKET NUMBER:  8-96
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (303) 499-8080
;      TELEFAX:  (303) 499-8089
;  INFORMATION FOR SEQ ID NO:  31:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  12 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  not relevant
;    MOLECULE TYPE:  DNA (genomic)
;    HYPOTHETICAL:  NO
US-08-771-602D-31

  Query Match           11.4%;  Score 8.8;  DB 1;  Length 12;
  Best Local Similarity  83.3%;  Pred. No. 27;
  Matches   10;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         55 GGCCCCTTAACC 66
              || ||| |||||
Db         12 GGGCCCATAACC 1


RESULT 84
US-08-779-355-19/c
; Sequence 19, Application US/08779355
; Patent No. 6017701
;  GENERAL INFORMATION:
;    APPLICANT:  Sorge, Joseph A.
;    APPLICANT:  Mullinax, Rebecca L.
;    TITLE OF INVENTION:  METHODS AND ADAPTORS FOR GENERATING
;    TITLE OF INVENTION:  SPECIFIC NUCLEIC ACID POPULATIONS
;    NUMBER OF SEQUENCES:  35
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Evenson, McKeown, Edwards & Lenahan P.L.L.C.
;      STREET:  1200 G Street N.W., Suite 700
;      CITY:  Washington
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20005
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/779,355
;      FILING DATE:  06-JAN-1997
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/775,993
;      FILING DATE:  03-JAN-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Kulik, David J.
;      REGISTRATION NUMBER:  36,576
;      REFERENCE/DOCKET NUMBER:  43092CP
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (202)628-8800
;      TELEFAX:  (202)628-8844
;  INFORMATION FOR SEQ ID NO:  19:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  12 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (genomic)
US-08-779-355-19

  Query Match           11.4%;  Score 8.8;  DB 1;  Length 12;
  Best Local Similarity  83.3%;  Pred. No. 27;
  Matches   10;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         23 TTCGCTTCGCTC 34
              ||| |||||| |
Db         12 TTCTCTTCGCAC 1


RESULT 85
US-08-938-835A-19/c
; Sequence 19, Application US/08938835A
; Patent No. 6060245
;  GENERAL INFORMATION:
;    APPLICANT:  SORGE, Joseph A.
;    APPLICANT:  MULLINAX, Rebecca L.
;    TITLE OF INVENTION:  METHODS AND ADAPTORS FOR GENERATING
;    TITLE OF INVENTION:  SPECIFIC NUCLEIC ACID POPULATIONS
;    NUMBER OF SEQUENCES:  69
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Finnegan, Henderson, Farabow, Garrett &
;      ADDRESSEE:  Dunner, L.L.P.
;      STREET:  1300 I Street, N.W.
;      CITY:  Washington
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20005-3315
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/938,835A
;      FILING DATE:  26-SEPT-1997
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/775,993
;      FILING DATE:  03-JAN-1997
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/779,335
;      FILING DATE:  06-JAN-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Barker, M. Paul
;      REGISTRATION NUMBER:  32,013
;      REFERENCE/DOCKET NUMBER:  04121.0044-02000
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-408-4000
;      TELEFAX:  202-408-4400
;  INFORMATION FOR SEQ ID NO:  19:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  12 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (genomic)
US-08-938-835A-19
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```
  Query Match             11.4%;  Score 8.8;  DB 1;  Length 12;
  Best Local Similarity   83.3%;  Pred. No. 27;
  Matches   10;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         23 TTCGCTTCGCTC 34
              ||| |||||| |
Db         12 TTCTCTTCGCAC 1
```

```
RESULT 86
5523089-35
;Patent No. 5523089
;    APPLICANT: BERGSTROM, SVEN;BARBOUR,ALAN G.;MAGNARELLI,LOUIS A.
;    TITLE OF INVENTION: BORRELIA ANTIGEN
;    NUMBER OF SEQUENCES: 38
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/79,601
;      FILING DATE: 22-JUN-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER: 924,798
;      FILING DATE: 06-AUG-1992
;      APPLICATION NUMBER: 422,881
;      FILING DATE: 18-OCT-1989
;SEQ ID NO:35:
;      LENGTH: 12
5523089-35
```

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  Query Match             11.4%;  Score 8.8;  DB 1;  Length 12;
  Best Local Similarity   83.3%;  Pred. No. 27;
  Matches   10;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         63 AACCAAACGTTA 74
              |||||||| | |
Db          1 AACCAAACTTAA 12
```

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Search completed: October 29, 2004, 12:34:07
Job time : 1 secs
```

GenCore version 5.1.6

OM nucleic - nucleic search, using sw model

Run on: October 29, 2004, 12:35:44 ; Search time 0.001 Seconds
(without alignments)
142.758 Million cell updates/sec

Title: US-09-701-626A-11
Perfect score: 77
Sequence: 1 acctaacaactggttcaagt.....cccttaaccaaacgttaggc 77

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 0.5

Searched: 59 seqs, 927 residues

Total number of hits satisfying chosen parameters: 118

Minimum DB seq length: 10
Maximum DB seq length: 77

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 64 summaries

Database : rnpb11.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Result No.	Score	% Query Match	Length	DB	ID	Description
	1	27.4	35.6	34	1	US-10-407-637-29	Sequence 29, Appl
	2	13.2	17.1	18	1	US-10-282-174-19	Sequence 19, Appl
c	3	12.8	16.6	18	1	US-10-398-308-105	Sequence 105, App
c	4	12.4	16.1	17	1	US-09-740-332-1927	Sequence 1927, Ap
	5	12.4	16.1	17	1	US-09-740-332-2628	Sequence 2628, Ap
	6	12.4	16.1	17	1	US-09-740-332-2629	Sequence 2629, Ap
c	7	12.4	16.1	17	1	US-09-817-879-1927	Sequence 1927, Ap
	8	12.4	16.1	17	1	US-09-817-879-2628	Sequence 2628, Ap
	9	12.4	16.1	17	1	US-09-817-879-2629	Sequence 2629, Ap
c	10	12.4	16.1	17	1	US-10-669-841-4520	Sequence 4520, Ap
	11	12.4	16.1	17	1	US-10-669-841-5221	Sequence 5221, Ap
	12	12.4	16.1	17	1	US-10-669-841-5222	Sequence 5222, Ap
	13	12.2	15.8	17	1	US-09-740-332-407	Sequence 407, App
c	14	12.2	15.8	17	1	US-09-740-332-2048	Sequence 2048, Ap
	15	12.2	15.8	17	1	US-09-817-879-407	Sequence 407, App
c	16	12.2	15.8	17	1	US-09-817-879-2048	Sequence 2048, Ap
	17	12.2	15.8	17	1	US-10-669-841-3000	Sequence 3000, Ap
c	18	12.2	15.8	17	1	US-10-669-841-4641	Sequence 4641, Ap
	19	12	15.6	15	1	US-09-504-231A-354	Sequence 354, App
	20	12	15.6	15	1	US-09-274-553D-354	Sequence 354, App
	21	12	15.6	17	1	US-09-740-332-1504	Sequence 1504, Ap
c	22	12	15.6	17	1	US-09-740-332-3051	Sequence 3051, Ap
	23	12	15.6	17	1	US-09-817-879-1504	Sequence 1504, Ap
c	24	12	15.6	17	1	US-09-817-879-3051	Sequence 3051, Ap
	25	12	15.6	17	1	US-10-669-841-4097	Sequence 4097, Ap
c	26	12	15.6	17	1	US-10-669-841-5644	Sequence 5644, Ap
c	27	11.8	15.3	15	1	US-09-740-332-4758	Sequence 4758, Ap
c	28	11.8	15.3	15	1	US-09-817-879-4758	Sequence 4758, Ap
c	29	11.8	15.3	15	1	US-10-669-841-7352	Sequence 7352, Ap
c	30	11.8	15.3	16	1	US-09-740-332-9664	Sequence 9664, Ap
c	31	11.8	15.3	16	1	US-09-817-879-9664	Sequence 9664, Ap
c	32	11.8	15.3	16	1	US-10-669-841-7415	Sequence 7415, Ap
c	33	11.2	14.5	16	1	US-10-090-182A-29	Sequence 29, Appl
c	34	11.2	14.5	16	1	US-10-090-182A-168	Sequence 168, App
c	35	11.2	14.5	16	1	US-10-078-113-29	Sequence 29, Appl
c	36	11.2	14.5	16	1	US-10-078-113-168	Sequence 168, App
c	37	11.2	14.5	16	1	US-10-179-940-29	Sequence 29, Appl
	38	11.2	14.5	16	1	US-10-674-836-7	Sequence 7, Appli
	39	11	14.3	15	1	US-09-504-231A-353	Sequence 353, App
	40	11	14.3	15	1	US-09-504-231A-355	Sequence 355, App
	41	11	14.3	15	1	US-09-274-553D-353	Sequence 353, App
	42	11	14.3	15	1	US-09-274-553D-355	Sequence 355, App
c	43	10.8	14.0	15	1	US-09-504-231A-441	Sequence 441, App
c	44	10.8	14.0	15	1	US-09-274-553D-441	Sequence 441, App
c	45	10.8	14.0	15	1	US-09-881-557A-10	Sequence 10, Appl
	46	10.4	13.5	13	1	US-09-825-805-127	Sequence 127, App
c	47	10.4	13.5	13	1	US-09-825-805-185	Sequence 185, App
	48	9.8	12.7	14	1	US-10-132-002-6	Sequence 6, Appli
c	49	9.8	12.7	14	1	US-10-132-002-10	Sequence 10, Appl
	50	9.8	12.7	14	1	US-10-166-225A-16	Sequence 16, Appl
	51	9.6	12.5	16	1	US-10-090-182A-29	Sequence 29, Appl
	52	9.6	12.5	16	1	US-10-090-182A-168	Sequence 168, App
	53	9.6	12.5	16	1	US-10-078-113-29	Sequence 29, Appl
	54	9.6	12.5	16	1	US-10-078-113-168	Sequence 168, App
	55	9.6	12.5	16	1	US-10-179-940-29	Sequence 29, Appl
	56	9.4	12.2	11	1	US-09-249-155-245	Sequence 245, App
	57	9.4	12.2	11	1	US-10-314-322-245	Sequence 245, App
	58	9.4	12.2	11	1	US-10-450-797-908	Sequence 908, App
c	59	9.4	12.2	11	1	US-10-450-797-1002	Sequence 1002, Ap
c	60	9.4	12.2	12	1	US-10-094-516B-50	Sequence 50, Appl
c	61	9.4	12.2	13	1	US-09-990-102-8	Sequence 8, Appli
	62	9.4	12.2	13	1	US-10-156-433-31	Sequence 31, Appl
	63	9.4	12.2	13	1	US-10-112-814-31	Sequence 31, Appl
c	64	9.4	12.2	13	1	US-10-338-587A-16	Sequence 16, Appl

ALIGNMENTS

RESULT 1
US-10-407-637-29
; Sequence 29, Application US/10407637
; Publication No. US20030194736A1
; GENERAL INFORMATION:
; APPLICANT: Bitinaite, Jurate
; TITLE OF INVENTION: Methods And Compositions For DNA Manipulation
; FILE REFERENCE: NEB-203-US
; CURRENT APPLICATION NUMBER: US/10/407,637
; CURRENT FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: US 60/372,352
; PRIOR FILING DATE: 2002-04-12
; PRIOR APPLICATION NUMBER: US 60/372,675
; PRIOR FILING DATE: 2002-04-15
; PRIOR APPLICATION NUMBER: US 60/421,010
; PRIOR FILING DATE: 2002-10-24
; NUMBER OF SEQ ID NOS: 34
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 29
; LENGTH: 34
; TYPE: DNA
; ORGANISM: unknown
; FEATURE:
; OTHER INFORMATION: Synthetic Primer Pal3-3
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (6)..(6)
; OTHER INFORMATION: n = 8-oxo-guanine
US-10-407-637-29

Query Match 35.6%; Score 27.4; DB 1; Length 34;
Best Local Similarity 93.3%; Pred. No. 0.1;
Matches 28; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Qy         45 GGCTAAAGCCGGCCCCTTAACCAAACGTTA 74
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Db          5 GNCTAAAGCCTGCCCCTTAACCAAACGTTA 34
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RESULT 2
US-10-282-174-19
; Sequence 19, Application US/10282174
; Publication No. US20030224380A1
; GENERAL INFORMATION:
;  APPLICANT: Becker, Kenneth David
;  APPLICANT:  Velicelebi, Gonul
;  APPLICANT:  Elliot, Kathryn J.
;  APPLICANT:  Wang, Xin
;  APPLICANT:  Tanzi, Rudolph E.
;  APPLICANT:  Bertram, Lars
;  APPLICANT:  Saunders, Aleister J.
;  APPLICANT:  Mullin, Kristina M.
;  APPLICANT:  Sampson, Andrew Johnson
;  APPLICANT:  Blacker, Deborah Lynne
;  TITLE OF INVENTION: GENES AND POLYMORPHISMS ON CHROMOSOME 10
;  TITLE OF INVENTION:  ASSOCIATED WITH ALZHEIMER'S DISEASE AND OTHER
;  TITLE OF INVENTION:  NEURODEGENERATIVE DISEASES
;  FILE REFERENCE: 37481-3308
;  CURRENT APPLICATION NUMBER: US/10/282,174
;  CURRENT FILING DATE:  2002-10-25
;  PRIOR APPLICATION NUMBER: US 60/339,525
;  PRIOR FILING DATE: 2001-10-25
;  PRIOR APPLICATION NUMBER: US 60/338,010
;  PRIOR FILING DATE: 2001-11-08
;  PRIOR APPLICATION NUMBER: US 60/336,929
;  PRIOR FILING DATE: 2001-11-08
;  PRIOR APPLICATION NUMBER: US 60/338,363
;  PRIOR FILING DATE: 2001-11-09
;  PRIOR APPLICATION NUMBER: US 60/337,052
;  PRIOR FILING DATE: 2001-12-04
;  PRIOR APPLICATION NUMBER: US 60/368,919
;  PRIOR FILING DATE: 2002-03-28
;  NUMBER OF SEQ ID NOS: 564
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 19
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Primer
US-10-282-174-19

  Query Match             17.1%;  Score 13.2;  DB 1;  Length 18;
  Best Local Similarity   83.3%;  Pred. No. 12;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         35 ACTCGGGACCGGCTAAAG 52
              || ||||| |||||| ||
Db          1 ACACGGGAGCGGCTACAG 18


RESULT 3
US-10-398-308-105/c
; Sequence 105, Application US/10398308
; Publication No. US20040029825A1
; GENERAL INFORMATION:
;  APPLICANT: Davies, Christopher J.
;  APPLICANT:  Schlafer, Donald H.
;  APPLICANT:  Hill, Jonathan R.
;  TITLE OF INVENTION: METHODS OF MINIMIZING IMMUNOLOGICAL REJECTION OF A
;  TITLE OF INVENTION:  NUCLEAR TRANSFER FETUS
;  FILE REFERENCE: 19603/3373
;  CURRENT APPLICATION NUMBER: US/10/398,308
;  CURRENT FILING DATE:  2003-04-03
;  PRIOR APPLICATION NUMBER: 60/237,673
;  PRIOR FILING DATE: 2000-10-03
;  PRIOR APPLICATION NUMBER: PCT/US01/30925
;  PRIOR FILING DATE: 2001-10-03
;  NUMBER OF SEQ ID NOS: 145
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 105
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  BoLA Class I,
;   OTHER INFORMATION: Exon 3, Series A Probe
US-10-398-308-105

  Query Match             16.6%;  Score 12.8;  DB 1;  Length 18;
  Best Local Similarity   87.5%;  Pred. No. 14;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         12 GGTTCAAGTCGTTCGC 27
              ||||||||  ||||||
Db         17 GGTTCAAGCAGTTCGC 2


RESULT 4
US-09-740-332-1927/c
; Sequence 1927, Application US/09740332
; Publication No. US20030125270A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: RPI 400/003
;  CURRENT APPLICATION NUMBER: US/09/740,332
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9704
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 1927
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: artificial sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-09-740-332-1927

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 17;
  Best Local Similarity   92.9%;  Pred. No. 15;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
              ||||| ||||||||
Db         15 GCCCCATAACCAAA 2


RESULT 5
US-09-740-332-2628
; Sequence 2628, Application US/09740332
; Publication No. US20030125270A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: RPI 400/003
;  CURRENT APPLICATION NUMBER: US/09/740,332
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9704
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2628
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: artificial sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-09-740-332-2628
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  Query Match             16.1%;  Score 12.4;  DB 1;  Length 17;
  Best Local Similarity   85.7%;  Pred. No. 15;
  Matches   12;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
              ||||| :|||||||
Db          4 GCCCCAUAACCAAA 17


RESULT 6
US-09-740-332-2629
; Sequence 2629, Application US/09740332
; Publication No. US20030125270A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: RPI 400/003
;  CURRENT APPLICATION NUMBER: US/09/740,332
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9704
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2629
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: artificial sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-09-740-332-2629

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 17;
  Best Local Similarity   85.7%;  Pred. No. 15;
  Matches   12;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
              ||||| :|||||||
Db          1 GCCCCAUAACCAAA 14


RESULT 7
US-09-817-879-1927/c
; Sequence 1927, Application US/09817879
; Publication No. US20030171311A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: MBHB00-801-F
;  CURRENT APPLICATION NUMBER: US/09/817,879
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9703
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 1927
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: artificial sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-09-817-879-1927

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 17;
  Best Local Similarity   92.9%;  Pred. No. 15;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
              ||||| ||||||||
Db         15 GCCCCATAACCAAA 2


RESULT 8
US-09-817-879-2628
; Sequence 2628, Application US/09817879
; Publication No. US20030171311A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: MBHB00-801-F
;  CURRENT APPLICATION NUMBER: US/09/817,879
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9703
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2628
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: artificial sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-09-817-879-2628

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 17;
  Best Local Similarity   85.7%;  Pred. No. 15;
  Matches   12;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
              ||||| :|||||||
Db          4 GCCCCAUAACCAAA 17


RESULT 9
US-09-817-879-2629
; Sequence 2629, Application US/09817879
; Publication No. US20030171311A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: MBHB00-801-F
;  CURRENT APPLICATION NUMBER: US/09/817,879
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9703
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2629
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: artificial sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-09-817-879-2629

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 17;
  Best Local Similarity   85.7%;  Pred. No. 15;
  Matches   12;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
              ||||| :|||||||
Db          1 GCCCCAUAACCAAA 14


RESULT 10
US-10-669-841-4520/c
; Sequence 4520, Application US/10669841
; Publication No. US20040127446A1
; GENERAL INFORMATION:
;  APPLICANT: Sirna Therapeutics, Inc.
;  APPLICANT:  Lawrence, Blatt
;  APPLICANT:  Dennis, Macejak
;  APPLICANT:  James, McSwiggen
```

```
;  APPLICANT:  David, Morrissey
;  APPLICANT:  Pamela, Pavco
;  APPLICANT:  Patrice, Lee
;  APPLICANT:  Kenneth, Draper
;  APPLICANT:  Elisabeth, Roberts
;  TITLE OF INVENTION: OLIGONUCLEOTIDE MEDIATED INHIBITION OF HEPATITIS B VIRUS AND HEPA
;  TITLE OF INVENTION:  VIRUS REPLICATION
;  FILE REFERENCE: 400/042US  (MBHB02-249-E)
;  CURRENT APPLICATION NUMBER: US/10/669,841
;  CURRENT FILING DATE:  2003-09-23
;  PRIOR APPLICATION NUMBER: PCT/US02/09187
;  PRIOR FILING DATE: 2002-03-26
;  PRIOR APPLICATION NUMBER: US 60/296,876
;  PRIOR FILING DATE: 2001-06-08
;  PRIOR APPLICATION NUMBER: US 60/335,059
;  PRIOR FILING DATE: 2001-10-24
;  PRIOR APPLICATION NUMBER: US 60/337,055
;  PRIOR FILING DATE: 2001-12-05
;  PRIOR APPLICATION NUMBER: US 60/358,580
;  PRIOR FILING DATE: 2002-02-20
;  PRIOR APPLICATION NUMBER: US 60/363,124
;  PRIOR FILING DATE: 2002-03-11
;  PRIOR APPLICATION NUMBER: US 09/817,879
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: US 09/740,332
;  PRIOR FILING DATE: 2000-12-18
;  PRIOR APPLICATION NUMBER: US 09/611,931
;  PRIOR FILING DATE: 2000-07-07
;  PRIOR APPLICATION NUMBER: US 09/504,321
;  PRIOR FILING DATE: 2000-02-15
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 16207
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 4520
;    LENGTH: 17
;    TYPE: RNA
;    ORGANISM: Artificial Sequence
;    FEATURE:
;    OTHER INFORMATION: Description of Artificial Sequence:  Nucleic Acid
;    FEATURE:
;    NAME/KEY: misc_feature
;    LOCATION:
;    OTHER INFORMATION: oligonucleotide substrate
US-10-669-841-4520

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 17;
  Best Local Similarity   92.9%;  Pred. No. 15;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
              ||||| ||||||||
Db         15 GCCCCATAACCAAA 2


RESULT 11
US-10-669-841-5221
; Sequence 5221, Application US/10669841
; Publication No. US20040127446A1
; GENERAL INFORMATION:
;  APPLICANT: Sirna Therapeutics, Inc.
;  APPLICANT:  Lawrence, Blatt
;  APPLICANT:  Dennis, Macejak
;  APPLICANT:  James, McSwiggen
;  APPLICANT:  David, Morrissey
;  APPLICANT:  Pamela, Pavco
;  APPLICANT:  Patrice, Lee
;  APPLICANT:  Kenneth, Draper
;  APPLICANT:  Elisabeth, Roberts
;  TITLE OF INVENTION: OLIGONUCLEOTIDE MEDIATED INHIBITION OF HEPATITIS B VIRUS AND HEPA
;  TITLE OF INVENTION:  VIRUS REPLICATION
;  FILE REFERENCE: 400/042US  (MBHB02-249-E)
;  CURRENT APPLICATION NUMBER: US/10/669,841
;  CURRENT FILING DATE:  2003-09-23
;  PRIOR APPLICATION NUMBER: PCT/US02/09187
;  PRIOR FILING DATE: 2002-03-26
;  PRIOR APPLICATION NUMBER: US 60/296,876
;  PRIOR FILING DATE: 2001-06-08
;  PRIOR APPLICATION NUMBER: US 60/335,059
;  PRIOR FILING DATE: 2001-10-24
;  PRIOR APPLICATION NUMBER: US 60/337,055
;  PRIOR FILING DATE: 2001-12-05
;  PRIOR APPLICATION NUMBER: US 60/358,580
;  PRIOR FILING DATE: 2002-02-20
;  PRIOR APPLICATION NUMBER: US 60/363,124
;  PRIOR FILING DATE: 2002-03-11
;  PRIOR APPLICATION NUMBER: US 09/817,879
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: US 09/740,332
;  PRIOR FILING DATE: 2000-12-18
;  PRIOR APPLICATION NUMBER: US 09/611,931
;  PRIOR FILING DATE: 2000-07-07
;  PRIOR APPLICATION NUMBER: US 09/504,321
;  PRIOR FILING DATE: 2000-02-15
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 16207
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 5221
;    LENGTH: 17
;    TYPE: RNA
;    ORGANISM: Artificial Sequence
;    FEATURE:
;    OTHER INFORMATION: Description of Artificial Sequence:  Nucleic Acid
;    FEATURE:
;    NAME/KEY: misc_feature
;    LOCATION:
;    OTHER INFORMATION: oligonucleotide substrate
US-10-669-841-5221

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 17;
  Best Local Similarity   85.7%;  Pred. No. 15;
  Matches   12;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
              ||||| :|||||||
Db          4 GCCCCAUAACCAAA 17


RESULT 12
US-10-669-841-5222
; Sequence 5222, Application US/10669841
; Publication No. US20040127446A1
; GENERAL INFORMATION:
;  APPLICANT: Sirna Therapeutics, Inc.
;  APPLICANT:  Lawrence, Blatt
;  APPLICANT:  Dennis, Macejak
;  APPLICANT:  James, McSwiggen
;  APPLICANT:  David, Morrissey
;  APPLICANT:  Pamela, Pavco
;  APPLICANT:  Patrice, Lee
;  APPLICANT:  Kenneth, Draper
;  APPLICANT:  Elisabeth, Roberts
;  TITLE OF INVENTION: OLIGONUCLEOTIDE MEDIATED INHIBITION OF HEPATITIS B VIRUS AND HEPA
;  TITLE OF INVENTION:  VIRUS REPLICATION
;  FILE REFERENCE: 400/042US  (MBHB02-249-E)
;  CURRENT APPLICATION NUMBER: US/10/669,841
;  CURRENT FILING DATE:  2003-09-23
;  PRIOR APPLICATION NUMBER: PCT/US02/09187
;  PRIOR FILING DATE: 2002-03-26
;  PRIOR APPLICATION NUMBER: US 60/296,876
;  PRIOR FILING DATE: 2001-06-08
;  PRIOR APPLICATION NUMBER: US 60/335,059
;  PRIOR FILING DATE: 2001-10-24
;  PRIOR APPLICATION NUMBER: US 60/337,055
;  PRIOR FILING DATE: 2001-12-05
;  PRIOR APPLICATION NUMBER: US 60/358,580
;  PRIOR FILING DATE: 2002-02-20
```

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;  PRIOR APPLICATION NUMBER: US 60/363,124
;  PRIOR FILING DATE: 2002-03-11
;  PRIOR APPLICATION NUMBER: US 09/817,879
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: US 09/740,332
;  PRIOR FILING DATE: 2000-12-18
;  PRIOR APPLICATION NUMBER: US 09/611,931
;  PRIOR FILING DATE: 2000-07-07
;  PRIOR APPLICATION NUMBER: US 09/504,321
;  PRIOR FILING DATE: 2000-02-15
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 16207
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 5222
;    LENGTH: 17
;    TYPE: RNA
;    ORGANISM: Artificial Sequence
;    FEATURE:
;    OTHER INFORMATION: Description of Artificial Sequence:  Nucleic Acid
;    FEATURE:
;    NAME/KEY: misc_feature
;    LOCATION:
;    OTHER INFORMATION: oligonucleotide substrate
US-10-669-841-5222

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 17;
  Best Local Similarity   85.7%;  Pred. No. 15;
  Matches   12;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
              ||||| :|||||||
Db          1 GCCCCAUAACCAAA 14


RESULT 13
US-09-740-332-407
; Sequence 407, Application US/09740332
; Publication No. US20030125270A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: RPI 400/003
;  CURRENT APPLICATION NUMBER: US/09/740,332
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9704
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 407
;    LENGTH: 17
;    TYPE: RNA
;    ORGANISM: artificial sequence
;    FEATURE:
;    NAME/KEY: misc_feature
;    LOCATION:
;    OTHER INFORMATION: oligonucleotide substrate
US-09-740-332-407

  Query Match             15.8%;  Score 12.2;  DB 1;  Length 17;
  Best Local Similarity   58.8%;  Pred. No. 16;
  Matches   10;  Conservative    4;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         10 CTGGTTCAAGTCGTTCG 26
              | ||::||| :||: ||
Db          1 CAGGUUCAACUCGUCCG 17


RESULT 14
US-09-740-332-2048/c
; Sequence 2048, Application US/09740332
; Publication No. US20030125270A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: RPI 400/003
;  CURRENT APPLICATION NUMBER: US/09/740,332
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9704
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2048
;    LENGTH: 17
;    TYPE: RNA
;    ORGANISM: artificial sequence
;    FEATURE:
;    NAME/KEY: misc_feature
;    LOCATION:
;    OTHER INFORMATION: oligonucleotide substrate
US-09-740-332-2048

  Query Match             15.8%;  Score 12.2;  DB 1;  Length 17;
  Best Local Similarity   82.4%;  Pred. No. 16;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         30 CGCTCACTCGGGACCGG 46
              ||||| | ||| |||||
Db         17 CGCTCGCGCGGCACCGG 1


RESULT 15
US-09-817-879-407
; Sequence 407, Application US/09817879
; Publication No. US20030171311A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: MBHB00-801-F
;  CURRENT APPLICATION NUMBER: US/09/817,879
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9703
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 407
;    LENGTH: 17
;    TYPE: RNA
;    ORGANISM: artificial sequence
;    FEATURE:
;    NAME/KEY: misc_feature
;    LOCATION:
;    OTHER INFORMATION: oligonucleotide substrate
US-09-817-879-407

  Query Match             15.8%;  Score 12.2;  DB 1;  Length 17;
  Best Local Similarity   58.8%;  Pred. No. 16;
  Matches   10;  Conservative    4;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         10 CTGGTTCAAGTCGTTCG 26
              | ||::||| :||: ||
Db          1 CAGGUUCAACUCGUCCG 17


RESULT 16
US-09-817-879-2048/c
; Sequence 2048, Application US/09817879
; Publication No. US20030171311A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relat
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: MBHB00-801-F
;  CURRENT APPLICATION NUMBER: US/09/817,879
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9703
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2048
;    LENGTH: 17
;    TYPE: RNA
```

```
;   ORGANISM: artificial sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-09-817-879-2048

  Query Match             15.8%;  Score 12.2;  DB 1;  Length 17;
  Best Local Similarity   82.4%;  Pred. No. 16;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         30 CGCTCACTCGGGACCGG 46
              ||||| | ||| |||||
Db         17 CGCTCGCGCGGCACCGG 1


RESULT 17
US-10-669-841-3000
; Sequence 3000, Application US/10669841
; Publication No. US20040127446A1
; GENERAL INFORMATION:
;  APPLICANT: Sirna Therapeutics, Inc.
;  APPLICANT:  Lawrence, Blatt
;  APPLICANT:  Dennis, Macejak
;  APPLICANT:  James, McSwiggen
;  APPLICANT:  David, Morrissey
;  APPLICANT:  Pamela, Pavco
;  APPLICANT:  Patrice, Lee
;  APPLICANT:  Kenneth, Draper
;  APPLICANT:  Elisabeth, Roberts
;  TITLE OF INVENTION: OLIGONUCLEOTIDE MEDIATED INHIBITION OF HEPATITIS B VIRUS AND HEPA
;  TITLE OF INVENTION:  VIRUS REPLICATION
;  FILE REFERENCE: 400/042US  (MBHB02-249-E)
;  CURRENT APPLICATION NUMBER: US/10/669,841
;  CURRENT FILING DATE:  2003-09-23
;  PRIOR APPLICATION NUMBER: PCT/US02/09187
;  PRIOR FILING DATE: 2002-03-26
;  PRIOR APPLICATION NUMBER: US 60/296,876
;  PRIOR FILING DATE: 2001-06-08
;  PRIOR APPLICATION NUMBER: US 60/335,059
;  PRIOR FILING DATE: 2001-10-24
;  PRIOR APPLICATION NUMBER: US 60/337,055
;  PRIOR FILING DATE: 2001-12-05
;  PRIOR APPLICATION NUMBER: US 60/358,580
;  PRIOR FILING DATE: 2002-02-20
;  PRIOR APPLICATION NUMBER: US 60/363,124
;  PRIOR FILING DATE: 2002-03-11
;  PRIOR APPLICATION NUMBER: US 09/817,879
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: US 09/740,332
;  PRIOR FILING DATE: 2000-12-18
;  PRIOR APPLICATION NUMBER: US 09/611,931
;  PRIOR FILING DATE: 2000-07-07
;  PRIOR APPLICATION NUMBER: US 09/504,321
;  PRIOR FILING DATE: 2000-02-15
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 16207
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3000
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  Nucleic Acid
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-10-669-841-3000

  Query Match             15.8%;  Score 12.2;  DB 1;  Length 17;
  Best Local Similarity   58.8%;  Pred. No. 16;
  Matches   10;  Conservative    4;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         10 CTGGTTCAAGTCGTTCG 26
              | ||::||| :||: ||
Db          1 CAGGUUCAACUCGUCCG 17


RESULT 18
US-10-669-841-4641/c
; Sequence 4641, Application US/10669841
; Publication No. US20040127446A1
; GENERAL INFORMATION:
;  APPLICANT: Sirna Therapeutics, Inc.
;  APPLICANT:  Lawrence, Blatt
;  APPLICANT:  Dennis, Macejak
;  APPLICANT:  James, McSwiggen
;  APPLICANT:  David, Morrissey
;  APPLICANT:  Pamela, Pavco
;  APPLICANT:  Patrice, Lee
;  APPLICANT:  Kenneth, Draper
;  APPLICANT:  Elisabeth, Roberts
;  TITLE OF INVENTION: OLIGONUCLEOTIDE MEDIATED INHIBITION OF HEPATITIS B VIRUS AND HEPAT
;  TITLE OF INVENTION:  VIRUS REPLICATION
;  FILE REFERENCE: 400/042US  (MBHB02-249-E)
;  CURRENT APPLICATION NUMBER: US/10/669,841
;  CURRENT FILING DATE:  2003-09-23
;  PRIOR APPLICATION NUMBER: PCT/US02/09187
;  PRIOR FILING DATE: 2002-03-26
;  PRIOR APPLICATION NUMBER: US 60/296,876
;  PRIOR FILING DATE: 2001-06-08
;  PRIOR APPLICATION NUMBER: US 60/335,059
;  PRIOR FILING DATE: 2001-10-24
;  PRIOR APPLICATION NUMBER: US 60/337,055
;  PRIOR FILING DATE: 2001-12-05
;  PRIOR APPLICATION NUMBER: US 60/358,580
;  PRIOR FILING DATE: 2002-02-20
;  PRIOR APPLICATION NUMBER: US 60/363,124
;  PRIOR FILING DATE: 2002-03-11
;  PRIOR APPLICATION NUMBER: US 09/817,879
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: US 09/740,332
;  PRIOR FILING DATE: 2000-12-18
;  PRIOR APPLICATION NUMBER: US 09/611,931
;  PRIOR FILING DATE: 2000-07-07
;  PRIOR APPLICATION NUMBER: US 09/504,321
;  PRIOR FILING DATE: 2000-02-15
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 16207
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 4641
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  Nucleic Acid
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-10-669-841-4641

  Query Match             15.8%;  Score 12.2;  DB 1;  Length 17;
  Best Local Similarity   82.4%;  Pred. No. 16;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         30 CGCTCACTCGGGACCGG 46
              ||||| | ||| |||||
Db         17 CGCTCGCGCGGCACCGG 1


RESULT 19
US-09-504-231A-354
; Sequence 354, Application US/09504231A
; Patent No. US20020013458A1
```

```
; GENERAL INFORMATION:
;  APPLICANT: Blatt, Lawrence
;  APPLICANT:  McSwiggen, James
;  APPLICANT:  Roberts, Beth
;  APPLICANT:  Pavco, Pamela
;  APPLICANT:  Macejak, Dennis
;  TITLE OF INVENTION: ENZYMATIC NUCLEIC ACID TREATMENT OF DISEASES OR CONDITIONS RELATE
;  TITLE OF INVENTION:  HEPATITIS C VIRUS INFECTION
;  FILE REFERENCE: rpi 247/282
;  CURRENT APPLICATION NUMBER: US/09/504,231A
;  CURRENT FILING DATE:  2000-02-15
;  PRIOR APPLICATION NUMBER: 09/274,553
;  PRIOR FILING DATE: 1999-03-23
;  PRIOR APPLICATION NUMBER: 09/257,608
;  PRIOR FILING DATE: 1999-02-24
;  PRIOR APPLICATION NUMBER: 60/100,842
;  PRIOR FILING DATE: 1998-09-18
;  PRIOR APPLICATION NUMBER: 60/083,217
;  PRIOR FILING DATE: 1998-04-27
;  NUMBER OF SEQ ID NOS: 3242
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 354
;   LENGTH: 15
;   TYPE: RNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  Nucleic Acid Target
US-09-504-231A-354

  Query Match             15.6%;  Score 12;  DB 1;  Length 15;
  Best Local Similarity   66.7%;  Pred. No. 15;
  Matches    8;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCGC 32
              ||::|||::|||
Db          4 CGUUCGCUUCGC 15


RESULT 20
US-09-274-553D-354
; Sequence 354, Application US/09274553D
; Patent No. US20020082225A1
; GENERAL INFORMATION:
;  APPLICANT: Blatt, Lawrence
;  APPLICANT:  McSwiggen, James
;  APPLICANT:  Roberts, Beth
;  APPLICANT:  Pavco, Pamela
;  APPLICANT:  Macejak, Dennis
;  TITLE OF INVENTION: ENZYMATIC NUCLEIC ACID TREATMENT OF DISEASES OR CONDITIONS RELATE
;  TITLE OF INVENTION:  HEPATITIS C VIRUS INFECTION
;  FILE REFERENCE: rpi 247/282
;  CURRENT APPLICATION NUMBER: US/09/274,553D
;  CURRENT FILING DATE:  1999-03-23
;  PRIOR APPLICATION NUMBER: 09/257,608
;  PRIOR FILING DATE: 1999-02-24
;  PRIOR APPLICATION NUMBER: 60/100,842
;  PRIOR FILING DATE: 1998-09-18
;  PRIOR APPLICATION NUMBER: 60/083,217
;  PRIOR FILING DATE: 1998-04-27
;  NUMBER OF SEQ ID NOS: 3148
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 354
;   LENGTH: 15
;   TYPE: RNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  Nucleic Acid Target
US-09-274-553D-354

  Query Match             15.6%;  Score 12;  DB 1;  Length 15;
  Best Local Similarity   66.7%;  Pred. No. 15;
  Matches    8;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCGC 32
              ||::|||::|||
Db          4 CGUUCGCUUCGC 15


RESULT 21
US-09-740-332-1504
; Sequence 1504, Application US/09740332
; Publication No. US20030125270A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: RPI 400/003
;  CURRENT APPLICATION NUMBER: US/09/740,332
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9704
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 1504
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: artificial sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-09-740-332-1504

  Query Match             15.6%;  Score 12;  DB 1;  Length 17;
  Best Local Similarity   66.7%;  Pred. No. 17;
  Matches    8;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCGC 32
              ||::|||::|||
Db          4 CGUUCGCUUCGC 15


RESULT 22
US-09-740-332-3051/c
; Sequence 3051, Application US/09740332
; Publication No. US20030125270A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: RPI 400/003
;  CURRENT APPLICATION NUMBER: US/09/740,332
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9704
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3051
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: artificial sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-09-740-332-3051

  Query Match             15.6%;  Score 12;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 17;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCGC 32
              ||||||||||||
Db          15 CGTTCGCTTCGC 4


RESULT 23
US-09-817-879-1504
; Sequence 1504, Application US/09817879
; Publication No. US20030171311A1
```

```
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: MBHB00-801-F
;  CURRENT APPLICATION NUMBER: US/09/817,879
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9703
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 1504
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: artificial sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-09-817-879-1504

  Query Match             15.6%;  Score 12;  DB 1;  Length 17;
  Best Local Similarity   66.7%;  Pred. No. 17;
  Matches    8;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCGC 32
              ||::|||::|||
Db          4 CGUUCGCUUCGC 15


RESULT 24
US-09-817-879-3051/c
; Sequence 3051, Application US/09817879
; Publication No. US20030171311A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: MBHB00-801-F
;  CURRENT APPLICATION NUMBER: US/09/817,879
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9703
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3051
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: artificial sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-09-817-879-3051

  Query Match             15.6%;  Score 12;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 17;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCGC 32
              ||||||||||||
Db         15 CGTTCGCTTCGC 4


RESULT 25
US-10-669-841-4097
; Sequence 4097, Application US/10669841
; Publication No. US20040127446A1
; GENERAL INFORMATION:
;  APPLICANT: Sirna Therapeutics, Inc.
;  APPLICANT:  Lawrence, Blatt
;  APPLICANT:  Dennis, Macejak
;  APPLICANT:  James, McSwiggen
;  APPLICANT:  David, Morrissey
;  APPLICANT:  Pamela, Pavco
;  APPLICANT:  Patrice, Lee
;  APPLICANT:  Kenneth, Draper
;  APPLICANT:  Elisabeth, Roberts
;  TITLE OF INVENTION: OLIGONUCLEOTIDE MEDIATED INHIBITION OF HEPATITIS B VIRUS AND HEPA
;  TITLE OF INVENTION:  VIRUS REPLICATION
;  FILE REFERENCE: 400/042US  (MBHB02-249-E)
;  CURRENT APPLICATION NUMBER: US/10/669,841
;  CURRENT FILING DATE:  2003-09-23
;  PRIOR APPLICATION NUMBER: PCT/US02/09187
;  PRIOR FILING DATE: 2002-03-26
;  PRIOR APPLICATION NUMBER: US 60/296,876
;  PRIOR FILING DATE: 2001-06-08
;  PRIOR APPLICATION NUMBER: US 60/335,059
;  PRIOR FILING DATE: 2001-10-24
;  PRIOR APPLICATION NUMBER: US 60/337,055
;  PRIOR FILING DATE: 2001-12-05
;  PRIOR APPLICATION NUMBER: US 60/358,580
;  PRIOR FILING DATE: 2002-02-20
;  PRIOR APPLICATION NUMBER: US 60/363,124
;  PRIOR FILING DATE: 2002-03-11
;  PRIOR APPLICATION NUMBER: US 09/817,879
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: US 09/740,332
;  PRIOR FILING DATE: 2000-12-18
;  PRIOR APPLICATION NUMBER: US 09/611,931
;  PRIOR FILING DATE: 2000-07-07
;  PRIOR APPLICATION NUMBER: US 09/504,321
;  PRIOR FILING DATE: 2000-02-15
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 16207
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 4097
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  Nucleic Acid
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-10-669-841-4097

  Query Match             15.6%;  Score 12;  DB 1;  Length 17;
  Best Local Similarity   66.7%;  Pred. No. 17;
  Matches    8;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCGC 32
              ||::|||::|||
Db          4 CGUUCGCUUCGC 15


RESULT 26
US-10-669-841-5644/c
; Sequence 5644, Application US/10669841
; Publication No. US20040127446A1
; GENERAL INFORMATION:
;  APPLICANT: Sirna Therapeutics, Inc.
;  APPLICANT:  Lawrence, Blatt
;  APPLICANT:  Dennis, Macejak
;  APPLICANT:  James, McSwiggen
;  APPLICANT:  David, Morrissey
;  APPLICANT:  Pamela, Pavco
;  APPLICANT:  Patrice, Lee
;  APPLICANT:  Kenneth, Draper
;  APPLICANT:  Elisabeth, Roberts
;  TITLE OF INVENTION: OLIGONUCLEOTIDE MEDIATED INHIBITION OF HEPATITIS B VIRUS AND HEPA
;  TITLE OF INVENTION:  VIRUS REPLICATION
;  FILE REFERENCE: 400/042US  (MBHB02-249-E)
;  CURRENT APPLICATION NUMBER: US/10/669,841
;  CURRENT FILING DATE:  2003-09-23
;  PRIOR APPLICATION NUMBER: PCT/US02/09187
;  PRIOR FILING DATE: 2002-03-26
;  PRIOR APPLICATION NUMBER: US 60/296,876
;  PRIOR FILING DATE: 2001-06-08
```

```
;  PRIOR APPLICATION NUMBER: US 60/335,059
;  PRIOR FILING DATE: 2001-10-24
;  PRIOR APPLICATION NUMBER: US 60/337,055
;  PRIOR FILING DATE: 2001-12-05
;  PRIOR APPLICATION NUMBER: US 60/358,580
;  PRIOR FILING DATE: 2002-02-20
;  PRIOR APPLICATION NUMBER: US 60/363,124
;  PRIOR FILING DATE: 2002-03-11
;  PRIOR APPLICATION NUMBER: US 09/817,879
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: US 09/740,332
;  PRIOR FILING DATE: 2000-12-18
;  PRIOR APPLICATION NUMBER: US 09/611,931
;  PRIOR FILING DATE: 2000-07-07
;  PRIOR APPLICATION NUMBER: US 09/504,321
;  PRIOR FILING DATE: 2000-02-15
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 16207
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 5644
;    LENGTH: 17
;    TYPE: RNA
;    ORGANISM: Artificial Sequence
;    FEATURE:
;    OTHER INFORMATION: Description of Artificial Sequence:  Nucleic Acid
;    FEATURE:
;    NAME/KEY: misc_feature
;    LOCATION:
;    OTHER INFORMATION: oligonucleotide substrate
US-10-669-841-5644

  Query Match             15.6%;  Score 12;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 17;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCGC 32
               ||||||||||||
Db         15 CGTTCGCTTCGC 4


RESULT 27
US-09-740-332-4758/c
; Sequence 4758, Application US/09740332
; Publication No. US20030125270A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: RPI 400/003
;  CURRENT APPLICATION NUMBER: US/09/740,332
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9704
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 4758
;    LENGTH: 15
;    TYPE: RNA
;    ORGANISM: Artificial Sequence
;    FEATURE:
;    NAME/KEY: misc_feature
;    LOCATION:
;    OTHER INFORMATION: oligonucleotide substrate
US-09-740-332-4758

  Query Match             15.3%;  Score 11.8;  DB 1;  Length 15;
  Best Local Similarity   86.7%;  Pred. No. 16;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          9 ACTGGTTCAAGTCGT 23
              || ||||||| ||||
Db         15 ACAGGTTCAACTCGT 1


RESULT 28
US-09-817-879-4758/c
; Sequence 4758, Application US/09817879
; Publication No. US20030171311A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: MBHB00-801-F
;  CURRENT APPLICATION NUMBER: US/09/817,879
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9703
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 4758
;    LENGTH: 15
;    TYPE: RNA
;    ORGANISM: Artificial Sequence
;    FEATURE:
;    NAME/KEY: misc_feature
;    LOCATION:
;    OTHER INFORMATION: oligonucleotide substrate
US-09-817-879-4758

  Query Match             15.3%;  Score 11.8;  DB 1;  Length 15;
  Best Local Similarity   86.7%;  Pred. No. 16;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          9 ACTGGTTCAAGTCGT 23
              || ||||||| ||||
Db         15 ACAGGTTCAACTCGT 1


RESULT 29
US-10-669-841-7352/c
; Sequence 7352, Application US/10669841
; Publication No. US20040127446A1
; GENERAL INFORMATION:
;  APPLICANT: Sirna Therapeutics, Inc.
;  APPLICANT:  Lawrence, Blatt
;  APPLICANT:  Dennis, Macejak
;  APPLICANT:  James, McSwiggen
;  APPLICANT:  David, Morrissey
;  APPLICANT:  Pamela, Pavco
;  APPLICANT:  Patrice, Lee
;  APPLICANT:  Kenneth, Draper
;  APPLICANT:  Elisabeth, Roberts
;  TITLE OF INVENTION: OLIGONUCLEOTIDE MEDIATED INHIBITION OF HEPATITIS B VIRUS AND HEPA
;  TITLE OF INVENTION:  VIRUS REPLICATION
;  FILE REFERENCE: 400/042US  (MBHB02-249-E)
;  CURRENT APPLICATION NUMBER: US/10/669,841
;  CURRENT FILING DATE:  2003-09-23
;  PRIOR APPLICATION NUMBER: PCT/US02/09187
;  PRIOR FILING DATE: 2002-03-26
;  PRIOR APPLICATION NUMBER: US 60/296,876
;  PRIOR FILING DATE: 2001-06-08
;  PRIOR APPLICATION NUMBER: US 60/335,059
;  PRIOR FILING DATE: 2001-10-24
;  PRIOR APPLICATION NUMBER: US 60/337,055
;  PRIOR FILING DATE: 2001-12-05
;  PRIOR APPLICATION NUMBER: US 60/358,580
;  PRIOR FILING DATE: 2002-02-20
;  PRIOR APPLICATION NUMBER: US 60/363,124
;  PRIOR FILING DATE: 2002-03-11
;  PRIOR APPLICATION NUMBER: US 09/817,879
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: US 09/740,332
;  PRIOR FILING DATE: 2000-12-18
;  PRIOR APPLICATION NUMBER: US 09/611,931
;  PRIOR FILING DATE: 2000-07-07
;  PRIOR APPLICATION NUMBER: US 09/504,321
;  PRIOR FILING DATE: 2000-02-15
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 16207
;  SOFTWARE: PatentIn version 3.0
```

```
; SEQ ID NO 7352
;   LENGTH: 15
;   TYPE: RNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  Nucleic Acid
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-10-669-841-7352

  Query Match             15.3%;  Score 11.8;  DB 1;  Length 15;
  Best Local Similarity   86.7%;  Pred. No. 16;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          9 ACTGGTTCAAGTCGT 23
              || ||||||| ||||
Db         15 ACAGGTTCAACTCGT 1


RESULT 30
US-09-740-332-9664/c
; Sequence 9664, Application US/09740332
; Publication No. US20030125270A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: RPI 400/003
;  CURRENT APPLICATION NUMBER: US/09/740,332
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9704
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 9664
;   LENGTH: 16
;   TYPE: RNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (16)..(16)
;   OTHER INFORMATION: n is inverted deoxyabasic
US-09-740-332-9664

  Query Match             15.3%;  Score 11.8;  DB 1;  Length 16;
  Best Local Similarity   86.7%;  Pred. No. 17;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          9 ACTGGTTCAAGTCGT 23
              || ||||||| ||||
Db         15 ACAGGTTCAACTCGT 1


RESULT 31
US-09-817-879-9664/c
; Sequence 9664, Application US/09817879
; Publication No. US20030171311A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: MBHB00-801-F
;  CURRENT APPLICATION NUMBER: US/09/817,879
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9703
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 9664
;   LENGTH: 16
;   TYPE: RNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (16)..(16)
;   OTHER INFORMATION: n is inverted deoxyabasic
US-09-817-879-9664

  Query Match             15.3%;  Score 11.8;  DB 1;  Length 16;
  Best Local Similarity   86.7%;  Pred. No. 17;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          9 ACTGGTTCAAGTCGT 23
              || ||||||| ||||
Db         15 ACAGGTTCAACTCGT 1


RESULT 32
US-10-669-841-7415/c
; Sequence 7415, Application US/10669841
; Publication No. US20040127446A1
; GENERAL INFORMATION:
;  APPLICANT: Sirna Therapeutics, Inc.
;  APPLICANT:  Lawrence, Blatt
;  APPLICANT:  Dennis, Macejak
;  APPLICANT:  James, McSwiggen
;  APPLICANT:  David, Morrissey
;  APPLICANT:  Pamela, Pavco
;  APPLICANT:  Patrice, Lee
;  APPLICANT:  Kenneth, Draper
;  APPLICANT:  Elisabeth, Roberts
;  TITLE OF INVENTION: OLIGONUCLEOTIDE MEDIATED INHIBITION OF HEPATITIS B VIRUS AND HEPA
;  TITLE OF INVENTION:  VIRUS REPLICATION
;  FILE REFERENCE: 400/042US  (MBHB02-249-E)
;  CURRENT APPLICATION NUMBER: US/10/669,841
;  CURRENT FILING DATE:  2003-09-23
;  PRIOR APPLICATION NUMBER: PCT/US02/09187
;  PRIOR FILING DATE: 2002-03-26
;  PRIOR APPLICATION NUMBER: US 60/296,876
;  PRIOR FILING DATE: 2001-06-08
;  PRIOR APPLICATION NUMBER: US 60/335,059
;  PRIOR FILING DATE: 2001-10-24
;  PRIOR APPLICATION NUMBER: US 60/337,055
;  PRIOR FILING DATE: 2001-12-05
;  PRIOR APPLICATION NUMBER: US 60/358,580
;  PRIOR FILING DATE: 2002-02-20
;  PRIOR APPLICATION NUMBER: US 60/363,124
;  PRIOR FILING DATE: 2002-03-11
;  PRIOR APPLICATION NUMBER: US 09/817,879
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: US 09/740,332
;  PRIOR FILING DATE: 2000-12-18
;  PRIOR APPLICATION NUMBER: US 09/611,931
;  PRIOR FILING DATE: 2000-07-07
;  PRIOR APPLICATION NUMBER: US 09/504,321
;  PRIOR FILING DATE: 2000-02-15
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 16207
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 7415
;   LENGTH: 16
;   TYPE: RNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  Nucleic Acid
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION: (16)..(16)
;   OTHER INFORMATION: n is inverted deoxyabasic
US-10-669-841-7415

  Query Match             15.3%;  Score 11.8;  DB 1;  Length 16;
  Best Local Similarity   86.7%;  Pred. No. 17;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          9 ACTGGTTCAAGTCGT 23
              || ||||||| ||||
Db         15 ACAGGTTCAACTCGT 1
```

```
RESULT 33
US-10-090-182A-29/c
; Sequence 29, Application US/10090182A
; Publication No. US20030103936A1
;   GENERAL INFORMATION:
;        APPLICANT: Abrams, Mark A.
;                   Bauer, S. C.
;                   Braford-Goldberg, Sarah R.
;                   Caparon, Maire H.
;                   Easton, Alan M.
;                   Klein, Barbara K.
;                   McKearn, John P.
;                   Olins, Peter O.
;                   Paik, Kumnan
;                   Thomas, John W.
;        TITLE OF INVENTION: Methods of Ex-vivo Expansion of
;                            Hematopoietic Cells Using Interleukin-3 (IL-3) Multiple
;                            Mutation Polypeptides
;        NUMBER OF SEQUENCES: 415
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: S. Christopher Bauer, Pharmacia Corp
;                        Corporate Patent Dept. Mail Zone O4E
;             STREET: 800 N. Lindbergh Blvd.
;             CITY: St. Louis
;             STATE: Missouri
;             COUNTRY: USA
;             ZIP: 63167
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.25
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/090,182A
;             FILING DATE: 03-Apr-2002
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 08/764,114
;             FILING DATE: 09-DEC-1996
;             APPLICATION NUMBER: US 07/981,044
;             FILING DATE: 24-NOV-1992
;             APPLICATION NUMBER: PCT/US93/11197
;             FILING DATE: 22-NOV-1993
;             APPLICATION NUMBER: 08/411,795
;             FILING DATE: 04-JUN-1995
;        ATTORNEY/AGENT INFORMATION:
;             NAME: S. Christopher Bauer
;             REGISTRATION NUMBER: 42,305
;             REFERENCE/DOCKET NUMBER: C2713/12
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (636)737-6257
;             TELEFAX: (736)737-6257
;   INFORMATION FOR SEQ ID NO: 29:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 16 base pairs
;             TYPE: nucleic acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: DNA (synthetic)
;        SEQUENCE DESCRIPTION: SEQ ID NO: 29:
US-10-090-182A-29

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 22;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1
```

```
RESULT 34
US-10-090-182A-168/c
; Sequence 168, Application US/10090182A
; Publication No. US20030103936A1
;   GENERAL INFORMATION:
;        APPLICANT: Abrams, Mark A.
;                   Bauer, S. C.
;                   Braford-Goldberg, Sarah R.
;                   Caparon, Maire H.
;                   Easton, Alan M.
;                   Klein, Barbara K.
;                   McKearn, John P.
;                   Olins, Peter O.
;                   Paik, Kumnan
;                   Thomas, John W.
;        TITLE OF INVENTION: Methods of Ex-vivo Expansion of
;                            Hematopoietic Cells Using Interleukin-3 (IL-3) Multiple
;                            Mutation Polypeptides
;        NUMBER OF SEQUENCES: 415
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: S. Christopher Bauer, Pharmacia Corp
;                        Corporate Patent Dept. Mail Zone O4E
;             STREET: 800 N. Lindbergh Blvd.
;             CITY: St. Louis
;             STATE: Missouri
;             COUNTRY: USA
;             ZIP: 63167
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.25
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/090,182A
;             FILING DATE: 03-Apr-2002
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 08/764,114
;             FILING DATE: 09-DEC-1996
;             APPLICATION NUMBER: US 07/981,044
;             FILING DATE: 24-NOV-1992
;             APPLICATION NUMBER: PCT/US93/11197
;             FILING DATE: 22-NOV-1993
;             APPLICATION NUMBER: 08/411,795
;             FILING DATE: 04-JUN-1995
;        ATTORNEY/AGENT INFORMATION:
;             NAME: S. Christopher Bauer
;             REGISTRATION NUMBER: 42,305
;             REFERENCE/DOCKET NUMBER: C2713/12
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (636)737-6257
;             TELEFAX: (736)737-6257
;   INFORMATION FOR SEQ ID NO: 168:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 16 base pairs
;             TYPE: nucleic acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: DNA (synthetic)
;        SEQUENCE DESCRIPTION: SEQ ID NO: 168:
US-10-090-182A-168

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 22;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 35
US-10-078-113-29/c
```

```
; Sequence 29, Application US/10078113
; Publication No. US20030220472A1
;   GENERAL INFORMATION:
;        APPLICANT: Abrams, Mark A.
;                   Bauer, S. C.
;                   Braford-Goldberg, Sarah R.
;                   Caparon, Maire H.
;                   Easton, Alan M.
;                   Klein, Barbara K.
;                   McKearn, John P.
;                   Olins, Peter O.
;                   Paik, Kumnan
;                   Thomas, John W.
;        TITLE OF INVENTION: Interleukin-3 (IL-3) Multiple Mutation
;                            Polypeptides
;        NUMBER OF SEQUENCES: 415
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Dennis A. Bennett, G.D. Searle & Co.,
;                        Corporate Patent Dept.
;             STREET: P. O. Box 5110
;             CITY: Chicago
;             STATE: Illinois
;             COUNTRY: USA
;             ZIP: 60680
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.25
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/078,113
;             FILING DATE: 19-Feb-2002
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 08/469,419
;             FILING DATE: <Unknown>
;             APPLICATION NUMBER: 08/411,795
;             FILING DATE: <Unknown>
;             APPLICATION NUMBER: PCT/US93/11197
;             FILING DATE: 22-NOV-1993
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Bennett, Dennis A.
;             REGISTRATION NUMBER: 34,547
;             REFERENCE/DOCKET NUMBER: C2713/2
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (708)470-6501
;             TELEFAX: (708)470-6881
;   INFORMATION FOR SEQ ID NO: 29:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 16 base pairs
;             TYPE: nucleic acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: DNA (synthetic)
;        SEQUENCE DESCRIPTION: SEQ ID NO: 29:
US-10-078-113-29

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 22;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 36
US-10-078-113-168/c
; Sequence 168, Application US/10078113
; Publication No. US20030220472A1
;   GENERAL INFORMATION:
;        APPLICANT: Abrams, Mark A.
;                   Bauer, S. C.
;                   Braford-Goldberg, Sarah R.
;                   Caparon, Maire H.
;                   Easton, Alan M.
;                   Klein, Barbara K.
;                   McKearn, John P.
;                   Olins, Peter O.
;                   Paik, Kumnan
;                   Thomas, John W.
;        TITLE OF INVENTION: Interleukin-3 (IL-3) Multiple Mutation
;                            Polypeptides
;        NUMBER OF SEQUENCES: 415
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Dennis A. Bennett, G.D. Searle & Co.,
;                        Corporate Patent Dept.
;             STREET: P. O. Box 5110
;             CITY: Chicago
;             STATE: Illinois
;             COUNTRY: USA
;             ZIP: 60680
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.25
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/078,113
;             FILING DATE: 19-Feb-2002
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 08/469,419
;             FILING DATE: <Unknown>
;             APPLICATION NUMBER: 08/411,795
;             FILING DATE: <Unknown>
;             APPLICATION NUMBER: PCT/US93/11197
;             FILING DATE: 22-NOV-1993
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Bennett, Dennis A.
;             REGISTRATION NUMBER: 34,547
;             REFERENCE/DOCKET NUMBER: C2713/2
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (708)470-6501
;             TELEFAX: (708)470-6881
;   INFORMATION FOR SEQ ID NO: 168:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 16 base pairs
;             TYPE: nucleic acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: DNA (synthetic)
;        SEQUENCE DESCRIPTION: SEQ ID NO: 168:
US-10-078-113-168

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 22;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 37
US-10-179-940-29/c
; Sequence 29, Application US/10179940
; Publication No. US20040018618A1
;   GENERAL INFORMATION:
;        APPLICANT: Abrams, Mark A.
;                   Bauer, S. C.
;                   Braford-Goldberg, Sarah R.
;                   Caparon, Maire H.
;                   Easton, Alan M.
;                   Klein, Barbara K.
;                   McKearn, John P.
;                   Olins, Peter O.
;                   Paik, Kumnan
```

```
;                 Polazzi, Joseph O.
;       TITLE OF INVENTION: Interleukin-3 (IL-3) Mutant Polypeptides
;       NUMBER OF SEQUENCES: 549
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: Carol M. Nielsen, Gardere Wynne Sewell LLP,
;            STREET: 1601 Elm Street, Suite 3000
;            CITY: Dallas
;            STATE: Texas
;            COUNTRY: USA
;            ZIP: 75201-4761
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Floppy disk
;            COMPUTER: IBM PC compatible
;            OPERATING SYSTEM: PC-DOS/MS-DOS
;            SOFTWARE: PatentIn Release #1.0, Version #1.25
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/10/179,940
;            FILING DATE: 19-Jun-2002
;            CLASSIFICATION: Unknown
;       PRIOR APPLICATION DATA:
;            APPLICATION NUMBER: US 07/981044
;            FILING DATE: 24-NOV-1992
;            APPLICATION NUMBER: PCT/US93/11198
;            FILING DATE: 22-NOV-1993
;            APPLICATION NUMBER: US 08/411796
;            FILING DATE: 09-APR-1995
;            APPLICATION NUMBER: US 08/559390
;            FILING DATE: 15-NOV-1995
;       ATTORNEY/AGENT INFORMATION:
;            NAME: Carol M. Nielsen
;            REGISTRATION NUMBER: 37,676
;            REFERENCE/DOCKET NUMBER: 126181-1056 (C2713/1)
;       TELECOMMUNICATION INFORMATION:
;            TELEPHONE: (713)276-5383
;            TELEFAX: (713)276-5555
;   INFORMATION FOR SEQ ID NO: 29:
;       SEQUENCE CHARACTERISTICS:
;            LENGTH: 16 base pairs
;            TYPE: nucleic acid
;            STRANDEDNESS: single
;            TOPOLOGY: linear
;       MOLECULE TYPE: DNA (synthetic)
;       SEQUENCE DESCRIPTION: SEQ ID NO: 29:
US-10-179-940-29

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 22;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 38
US-10-674-836-7
; Sequence 7, Application US/10674836
; Publication No. US20040072787A1
; GENERAL INFORMATION:
;  APPLICANT: Morin, Gregg B.
;  APPLICANT:  Lichtsteiner, Serge
;  APPLICANT:  Vasserot, Alain
;  APPLICANT:  Adams, Robert R.
;  APPLICANT:  Geron Corporation
;  TITLE OF INVENTION: Telomerase Reverse Transcriptase Transcriptional
;  TITLE OF INVENTION:  Regulatory Sequences and Methods of Using
;  FILE REFERENCE: 019/246P
;  CURRENT APPLICATION NUMBER: US/10/674,836
;  CURRENT FILING DATE:  2003-09-29
;  PRIOR APPLICATION NUMBER: US/09/244,438
;  PRIOR FILING DATE: 1999-02-04
;  NUMBER OF SEQ ID NOS: 23
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 7
;   LENGTH: 16
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: RA97
US-10-674-836-7

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 22;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         17 AAGTCGTTCGCTTCGC 32
              || ||||  |||||||
Db          1 AATTCGTAAGCTTCGC 16


RESULT 39
US-09-504-231A-353
; Sequence 353, Application US/09504231A
; Patent No. US20020013458A1
; GENERAL INFORMATION:
;  APPLICANT: Blatt, Lawrence
;  APPLICANT:  McSwiggen, James
;  APPLICANT:  Roberts, Beth
;  APPLICANT:  Pavco, Pamela
;  APPLICANT:  Macejak, Dennis
;  TITLE OF INVENTION: ENZYMATIC NUCLEIC ACID TREATMENT OF DISEASES OR CONDITIONS RELATE
;  TITLE OF INVENTION:  HEPATITIS C VIRUS INFECTION
;  FILE REFERENCE: rpi 247/282
;  CURRENT APPLICATION NUMBER: US/09/504,231A
;  CURRENT FILING DATE:  2000-02-15
;  PRIOR APPLICATION NUMBER: 09/274,553
;  PRIOR FILING DATE: 1999-03-23
;  PRIOR APPLICATION NUMBER: 09/257,608
;  PRIOR FILING DATE: 1999-02-24
;  PRIOR APPLICATION NUMBER: 60/100,842
;  PRIOR FILING DATE: 1998-09-18
;  PRIOR APPLICATION NUMBER: 60/083,217
;  PRIOR FILING DATE: 1998-04-27
;  NUMBER OF SEQ ID NOS: 3242
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 353
;   LENGTH: 15
;   TYPE: RNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  Nucleic Acid Target
US-09-504-231A-353

  Query Match             14.3%;  Score 11;  DB 1;  Length 15;
  Best Local Similarity   63.6%;  Pred. No. 21;
  Matches    7;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCG 31
              ||::|||::||
Db          5 CGUUCGCUUCG 15


RESULT 40
US-09-504-231A-355
; Sequence 355, Application US/09504231A
; Patent No. US20020013458A1
; GENERAL INFORMATION:
;  APPLICANT: Blatt, Lawrence
;  APPLICANT:  McSwiggen, James
;  APPLICANT:  Roberts, Beth
;  APPLICANT:  Pavco, Pamela
;  APPLICANT:  Macejak, Dennis
;  TITLE OF INVENTION: ENZYMATIC NUCLEIC ACID TREATMENT OF DISEASES OR CONDITIONS RELAT
;  TITLE OF INVENTION:  HEPATITIS C VIRUS INFECTION
;  FILE REFERENCE: rpi 247/282
;  CURRENT APPLICATION NUMBER: US/09/504,231A
```

```
;  CURRENT FILING DATE:  2000-02-15
;  PRIOR APPLICATION NUMBER: 09/274,553
;  PRIOR FILING DATE: 1999-03-23
;  PRIOR APPLICATION NUMBER: 09/257,608
;  PRIOR FILING DATE: 1999-02-24
;  PRIOR APPLICATION NUMBER: 60/100,842
;  PRIOR FILING DATE: 1998-09-18
;  PRIOR APPLICATION NUMBER: 60/083,217
;  PRIOR FILING DATE: 1998-04-27
;  NUMBER OF SEQ ID NOS: 3242
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 355
;   LENGTH: 15
;   TYPE: RNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  Nucleic Acid Target
US-09-504-231A-355

  Query Match             14.3%;  Score 11;  DB 1;  Length 15;
  Best Local Similarity   63.6%;  Pred. No. 21;
  Matches    7;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         22 GTTCGCTTCGC 32
              |::|||::|||
Db          1 GUUCGCUUCGC 11


RESULT 41
US-09-274-553D-353
; Sequence 353, Application US/09274553D
; Patent No. US20020082225A1
; GENERAL INFORMATION:
;  APPLICANT: Blatt, Lawrence
;  APPLICANT:  McSwiggen, James
;  APPLICANT:  Roberts, Beth
;  APPLICANT:  Pavco, Pamela
;  APPLICANT:  Macejak, Dennis
;  TITLE OF INVENTION: ENZYMATIC NUCLEIC ACID TREATMENT OF DISEASES OR CONDITIONS RELATE
;  TITLE OF INVENTION:  HEPATITIS C VIRUS INFECTION
;  FILE REFERENCE: rpi 247/282
;  CURRENT APPLICATION NUMBER: US/09/274,553D
;  CURRENT FILING DATE:  1999-03-23
;  PRIOR APPLICATION NUMBER: 09/257,608
;  PRIOR FILING DATE: 1999-02-24
;  PRIOR APPLICATION NUMBER: 60/100,842
;  PRIOR FILING DATE: 1998-09-18
;  PRIOR APPLICATION NUMBER: 60/083,217
;  PRIOR FILING DATE: 1998-04-27
;  NUMBER OF SEQ ID NOS: 3148
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 353
;   LENGTH: 15
;   TYPE: RNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  Nucleic Acid Target
US-09-274-553D-353

  Query Match             14.3%;  Score 11;  DB 1;  Length 15;
  Best Local Similarity   63.6%;  Pred. No. 21;
  Matches    7;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCG 31
              ||::|||::||
Db          5 CGUUCGCUUCG 15


RESULT 42
US-09-274-553D-355
; Sequence 355, Application US/09274553D
; Patent No. US20020082225A1
; GENERAL INFORMATION:
;  APPLICANT: Blatt, Lawrence
;  APPLICANT:  McSwiggen, James
;  APPLICANT:  Roberts, Beth
;  APPLICANT:  Pavco, Pamela
;  APPLICANT:  Macejak, Dennis
;  TITLE OF INVENTION: ENZYMATIC NUCLEIC ACID TREATMENT OF DISEASES OR CONDITIONS RELATEI
;  TITLE OF INVENTION:  HEPATITIS C VIRUS INFECTION
;  FILE REFERENCE: rpi 247/282
;  CURRENT APPLICATION NUMBER: US/09/274,553D
;  CURRENT FILING DATE:  1999-03-23
;  PRIOR APPLICATION NUMBER: 09/257,608
;  PRIOR FILING DATE: 1999-02-24
;  PRIOR APPLICATION NUMBER: 60/100,842
;  PRIOR FILING DATE: 1998-09-18
;  PRIOR APPLICATION NUMBER: 60/083,217
;  PRIOR FILING DATE: 1998-04-27
;  NUMBER OF SEQ ID NOS: 3148
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 355
;   LENGTH: 15
;   TYPE: RNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  Nucleic Acid Target
US-09-274-553D-355

  Query Match             14.3%;  Score 11;  DB 1;  Length 15;
  Best Local Similarity   63.6%;  Pred. No. 21;
  Matches    7;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         22 GTTCGCTTCGC 32
              |::|||::|||
Db          1 GUUCGCUUCGC 11


RESULT 43
US-09-504-231A-441/c
; Sequence 441, Application US/09504231A
; Patent No. US20020013458A1
; GENERAL INFORMATION:
;  APPLICANT: Blatt, Lawrence
;  APPLICANT:  McSwiggen, James
;  APPLICANT:  Roberts, Beth
;  APPLICANT:  Pavco, Pamela
;  APPLICANT:  Macejak, Dennis
;  TITLE OF INVENTION: ENZYMATIC NUCLEIC ACID TREATMENT OF DISEASES OR CONDITIONS RELATEI
;  TITLE OF INVENTION:  HEPATITIS C VIRUS INFECTION
;  FILE REFERENCE: rpi 247/282
;  CURRENT APPLICATION NUMBER: US/09/504,231A
;  CURRENT FILING DATE:  2000-02-15
;  PRIOR APPLICATION NUMBER: 09/274,553
;  PRIOR FILING DATE: 1999-03-23
;  PRIOR APPLICATION NUMBER: 09/257,608
;  PRIOR FILING DATE: 1999-02-24
;  PRIOR APPLICATION NUMBER: 60/100,842
;  PRIOR FILING DATE: 1998-09-18
;  PRIOR APPLICATION NUMBER: 60/083,217
;  PRIOR FILING DATE: 1998-04-27
;  NUMBER OF SEQ ID NOS: 3242
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 441
;   LENGTH: 15
;   TYPE: RNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  Nucleic Acid Target
US-09-504-231A-441

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 23;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
```

```
                 ||||| || |||||
Db          14 GCCCCATAGCCAAA 1
```

RESULT 44
US-09-274-553D-441/c
; Sequence 441, Application US/09274553D
; Patent No.-US20020082225A1
; GENERAL INFORMATION:
; APPLICANT: Blatt, Lawrence
; APPLICANT: McSwiggen, James
; APPLICANT: Roberts, Beth
; APPLICANT: Pavco, Pamela
; APPLICANT: Macejak, Dennis
; TITLE OF INVENTION: ENZYMATIC NUCLEIC ACID TREATMENT OF DISEASES OR CONDITIONS RELATE
; TITLE OF INVENTION: HEPATITIS C VIRUS INFECTION
; FILE REFERENCE: rpi 247/282
; CURRENT APPLICATION NUMBER: US/09/274,553D
; CURRENT FILING DATE: 1999-03-23
; PRIOR APPLICATION NUMBER: 09/257,608
; PRIOR FILING DATE: 1999-02-24
; PRIOR APPLICATION NUMBER: 60/100,842
; PRIOR FILING DATE: 1998-09-18
; PRIOR APPLICATION NUMBER: 60/083,217
; PRIOR FILING DATE: 1998-04-27
; NUMBER OF SEQ ID NOS: 3148
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 441
; LENGTH: 15
; TYPE: RNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Nucleic Acid Target
US-09-274-553D-441

Query Match 14.0%; Score 10.8; DB 1; Length 15;
Best Local Similarity 85.7%; Pred. No. 23;
Matches 12; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy          56 GCCCCTTAACCAAA 69
                 ||||| || |||||
Db          14 GCCCCATAGCCAAA 1
```

RESULT 45
US-09-881-557A-10/c
; Sequence 10, Application US/09881557A
; Publication No. US20020177133A1
; GENERAL INFORMATION:
; APPLICANT: EGHOLM, Michael
; APPLICANT: CHEN, Caifu
; TITLE OF INVENTION: TEMPLATE-DEPENDENT LIGATION WITH PNA-DNA CHIMERIC
; TITLE OF INVENTION: PROBES
; FILE REFERENCE: 4474US
; CURRENT APPLICATION NUMBER: US/09/881,557A
; CURRENT FILING DATE: 2001-06-14
; PRIOR APPLICATION NUMBER: US/09/416,003
; PRIOR FILING DATE: 1999-10-08
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 10
; LENGTH: 15
; TYPE: DNA
; ORGANISM: Unknown Organism
; FEATURE:
; OTHER INFORMATION: Description of Unknown Organism: Bacterial
US-09-881-557A-10

Query Match 14.0%; Score 10.8; DB 1; Length 15;
Best Local Similarity 85.7%; Pred. No. 23;
Matches 12; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy          48 TAAAGCCGGCCCCT 61
```

```
                 ||||||||  |||
Db          15 TAAAGCCGGGACCT 2
```

RESULT 46
US-09-825-805-127
; Sequence 127, Application US/09825805
; Publication No. US20030004122A1
; GENERAL INFORMATION:
; APPLICANT: Ribozyme Pharmaceuticals, Inc.
; APPLICANT: Beigelman, Leo
; APPLICANT: Beaudry, Amber
; APPLICANT: Karpeisky, Alex
; APPLICANT: Adamic, Jasenka Matulic
; APPLICANT: Sweedler, Dave
; APPLICANT: Zinnen, Shawn
; TITLE OF INVENTION: Nucleotide Triphosphate and their Incorporation into Oligonucleot
; FILE REFERENCE: MBHB00-831-F (400/009)
; CURRENT APPLICATION NUMBER: US/09/825,805
; CURRENT FILING DATE: 2001-09-27
; PRIOR APPLICATION NUMBER: 09/578,223
; PRIOR FILING DATE: 2000-05-23
; PRIOR APPLICATION NUMBER: 09/476,387
; PRIOR FILING DATE: 1999-12-30
; PRIOR APPLICATION NUMBER: 09/474,432
; PRIOR FILING DATE: 1999-12-29
; PRIOR APPLICATION NUMBER: 09/301,511
; PRIOR FILING DATE: 1999-04-28
; PRIOR APPLICATION NUMBER: 09/186,675
; PRIOR FILING DATE: 1998-11-04
; PRIOR APPLICATION NUMBER: 60/083,727
; PRIOR FILING DATE: 1998-04-29
; PRIOR APPLICATION NUMBER: 60/064,866
; PRIOR FILING DATE: 1997-11-05
; NUMBER OF SEQ ID NOS: 1558
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 127
; LENGTH: 13
; TYPE: RNA
; ORGANISM: Homo sapiens
US-09-825-805-127

Query Match 13.5%; Score 10.4; DB 1; Length 13;
Best Local Similarity 66.7%; Pred. No. 22;
Matches 8; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

```
Qy          26 GCTTCGCTCACT 37
                 ||: |||:|||:
Db           2 GCUGCGCUCACU 13
```

RESULT 47
US-09-825-805-185/c
; Sequence 185, Application US/09825805
; Publication No. US20030004122A1
; GENERAL INFORMATION:
; APPLICANT: Ribozyme Pharmaceuticals, Inc.
; APPLICANT: Beigelman, Leo
; APPLICANT: Beaudry, Amber
; APPLICANT: Karpeisky, Alex
; APPLICANT: Adamic, Jasenka Matulic
; APPLICANT: Sweedler, Dave
; APPLICANT: Zinnen, Shawn
; TITLE OF INVENTION: Nucleotide Triphosphate and their Incorporation into Oligonucleo
; FILE REFERENCE: MBHB00-831-F (400/009)
; CURRENT APPLICATION NUMBER: US/09/825,805
; CURRENT FILING DATE: 2001-09-27
; PRIOR APPLICATION NUMBER: 09/578,223
; PRIOR FILING DATE: 2000-05-23
; PRIOR APPLICATION NUMBER: 09/476,387
; PRIOR FILING DATE: 1999-12-30
; PRIOR APPLICATION NUMBER: 09/474,432
; PRIOR FILING DATE: 1999-12-29

```
;  PRIOR APPLICATION NUMBER: 09/301,511
;  PRIOR FILING DATE: 1999-04-28
;  PRIOR APPLICATION NUMBER: 09/186,675
;  PRIOR FILING DATE: 1998-11-04
;  PRIOR APPLICATION NUMBER: 60/083,727
;  PRIOR FILING DATE: 1998-04-29
;  PRIOR APPLICATION NUMBER: 60/064,866
;  PRIOR FILING DATE: 1997-11-05
;  NUMBER OF SEQ ID NOS: 1558
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 185
;   LENGTH: 13
;   TYPE: RNA
;   ORGANISM: Homo sapiens
US-09-825-805-185

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 22;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         51 AGCCGGCCCCTT 62
               |||| |||||||
Db         13 AGCCAGCCCCTT 2


RESULT 48
US-10-132-002-6
; Sequence 6, Application US/10132002
; Publication No. US20030022204A1
;   GENERAL INFORMATION:
;        APPLICANT: Lansdorp, Peter
;        TITLE OF INVENTION: Method for Detecting Multiple Copies of
;                            a Repeat Sequence in a Nucleic Acid Molecule
;        NUMBER OF SEQUENCES: 14
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: HOWSON & HOWSON
;             STREET: 321 No. US20030022204A1ristown Road
;             CITY: Spring House
;             STATE: PA
;             COUNTRY: U.S.A.
;             ZIP: 19477
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/132,002
;             FILING DATE: 25-Apr-2002
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/08/730,635
;             FILING DATE: 11-OCT-1996
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Bak, Mary E.
;             REGISTRATION NUMBER: 31,215
;             REFERENCE/DOCKET NUMBER: B&P7USA
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (215) 540-9200
;             TELEFAX: (215) 540-5818
;             TELEX: N/A
;   INFORMATION FOR SEQ ID NO: 6:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 14 base pairs
;             TYPE: nucleic acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: DNA (genomic)
;        SEQUENCE DESCRIPTION: SEQ ID NO: 6:
US-10-132-002-6

  Query Match             12.7%;  Score 9.8;  DB 1;  Length 14;
  Best Local Similarity   84.6%;  Pred. No. 30;
  Matches   11;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCAAAC 70
               ||| |||| ||||
Db          1 CCCATAACTAAAC 13


RESULT 49
US-10-132-002-10/c
; Sequence 10, Application US/10132002
; Publication No. US20030022204A1
;   GENERAL INFORMATION:
;        APPLICANT: Lansdorp, Peter
;        TITLE OF INVENTION: Method for Detecting Multiple Copies of
;                            a Repeat Sequence in a Nucleic Acid Molecule
;        NUMBER OF SEQUENCES: 14
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: HOWSON & HOWSON
;             STREET: 321 No. US20030022204A1ristown Road
;             CITY: Spring House
;             STATE: PA
;             COUNTRY: U.S.A.
;             ZIP: 19477
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/132,002
;             FILING DATE: 25-Apr-2002
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/08/730,635
;             FILING DATE: 11-OCT-1996
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Bak, Mary E.
;             REGISTRATION NUMBER: 31,215
;             REFERENCE/DOCKET NUMBER: B&P7USA
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (215) 540-9200
;             TELEFAX: (215) 540-5818
;             TELEX: N/A
;   INFORMATION FOR SEQ ID NO: 10:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 14 base pairs
;             TYPE: nucleic acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: DNA (genomic)
;        SEQUENCE DESCRIPTION: SEQ ID NO: 10:
US-10-132-002-10

  Query Match             12.7%;  Score 9.8;  DB 1;  Length 14;
  Best Local Similarity   84.6%;  Pred. No. 30;
  Matches   11;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCAAAC 70
               ||| |||| ||||
Db         14 CCCATAACTAAAC 2


RESULT 50
US-10-166-225A-16
; Sequence 16, Application US/10166225A
; Publication No. US20030148416A1
; GENERAL INFORMATION:
;  APPLICANT: BERRY, Alan
;  APPLICANT:  BRETZEL, Werner
;  APPLICANT:  HUMBELIN, Markus
;  APPLICANT:  LOPEZ-ULIBARRI, Rual
;  APPLICANT:  MAYER, Anne F.
;  APPLICANT:  YELISEEV, Alexei A.
```

```
;  TITLE OF INVENTION: IMPROVED ISOPRENOID PRODUCTION
;  FILE REFERENCE: C38435/121966
;  CURRENT APPLICATION NUMBER: US/10/166,225A
;  CURRENT FILING DATE:  2002-06-05
;  NUMBER OF SEQ ID NOS: 197
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 16
;   LENGTH: 14
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic construct
US-10-166-225A-16

  Query Match             12.7%;  Score 9.8;  DB 1;  Length 14;
  Best Local Similarity   84.6%;  Pred. No. 30;
  Matches   11;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         35 ACTCGGGACCGGC 47
              |||| |||| |||
Db          2 ACTCAGGACTGGC 14


RESULT 51
US-10-090-182A-29
; Sequence 29, Application US/10090182A
; Publication No. US20030103936A1
;   GENERAL INFORMATION:
;        APPLICANT: Abrams, Mark A.
;                   Bauer, S. C.
;                   Braford-Goldberg, Sarah R.
;                   Caparon, Maire H.
;                   Easton, Alan M.
;                   Klein, Barbara K.
;                   McKearn, John P.
;                   Olins, Peter O.
;                   Paik, Kumnan
;                   Thomas, John W.
;        TITLE OF INVENTION: Methods of Ex-vivo Expansion of
;                            Hematopoietic Cells Using Interleukin-3 (IL-3) Multiple
;                            Mutation Polypeptides
;        NUMBER OF SEQUENCES: 415
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: S. Christopher Bauer, Pharmacia Corp
;                        Corporate Patent Dept. Mail Zone O4E
;             STREET: 800 N. Lindbergh Blvd.
;             CITY: St. Louis
;             STATE: Missouri
;             COUNTRY: USA
;             ZIP: 63167
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.25
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/090,182A
;             FILING DATE: 03-Apr-2002
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 08/764,114
;             FILING DATE: 09-DEC-1996
;             APPLICATION NUMBER: US 07/981,044
;             FILING DATE: 24-NOV-1992
;             APPLICATION NUMBER: PCT/US93/11197
;             FILING DATE: 22-NOV-1993
;             APPLICATION NUMBER: 08/411,795
;             FILING DATE: 04-JUN-1995
;        ATTORNEY/AGENT INFORMATION:
;             NAME: S. Christopher Bauer
;             REGISTRATION NUMBER: 42,305
;             REFERENCE/DOCKET NUMBER: C2713/12
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (636)737-6257
;             TELEFAX: (736)737-6257
;   INFORMATION FOR SEQ ID NO: 29:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 16 base pairs
;             TYPE: nucleic acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: DNA (synthetic)
;        SEQUENCE DESCRIPTION: SEQ ID NO: 29:
US-10-090-182A-29

  Query Match             12.5%;  Score 9.6;  DB 1;  Length 16;
  Best Local Similarity   75.0%;  Pred. No. 38;
  Matches   12;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGTTAGG 76
              | ||||| | || |||
Db          1 TGAACCATATGTCAGG 16


RESULT 52
US-10-090-182A-168
; Sequence 168, Application US/10090182A
; Publication No. US20030103936A1
;   GENERAL INFORMATION:
;        APPLICANT: Abrams, Mark A.
;                   Bauer, S. C.
;                   Braford-Goldberg, Sarah R.
;                   Caparon, Maire H.
;                   Easton, Alan M.
;                   Klein, Barbara K.
;                   McKearn, John P.
;                   Olins, Peter O.
;                   Paik, Kumnan
;                   Thomas, John W.
;        TITLE OF INVENTION: Methods of Ex-vivo Expansion of
;                            Hematopoietic Cells Using Interleukin-3 (IL-3) Multiple
;                            Mutation Polypeptides
;        NUMBER OF SEQUENCES: 415
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: S. Christopher Bauer, Pharmacia Corp
;                        Corporate Patent Dept. Mail Zone O4E
;             STREET: 800 N. Lindbergh Blvd.
;             CITY: St. Louis
;             STATE: Missouri
;             COUNTRY: USA
;             ZIP: 63167
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.25
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/090,182A
;             FILING DATE: 03-Apr-2002
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 08/764,114
;             FILING DATE: 09-DEC-1996
;             APPLICATION NUMBER: US 07/981,044
;             FILING DATE: 24-NOV-1992
;             APPLICATION NUMBER: PCT/US93/11197
;             FILING DATE: 22-NOV-1993
;             APPLICATION NUMBER: 08/411,795
;             FILING DATE: 04-JUN-1995
;        ATTORNEY/AGENT INFORMATION:
;             NAME: S. Christopher Bauer
;             REGISTRATION NUMBER: 42,305
;             REFERENCE/DOCKET NUMBER: C2713/12
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (636)737-6257
;             TELEFAX: (736)737-6257
```

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;   INFORMATION FOR SEQ ID NO: 168:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 16 base pairs
;             TYPE: nucleic acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: DNA (synthetic)
;        SEQUENCE DESCRIPTION: SEQ ID NO: 168:
US-10-090-182A-168

  Query Match             12.5%;  Score 9.6;  DB 1;  Length 16;
  Best Local Similarity   75.0%;  Pred. No. 38;
  Matches   12;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGTTAGG 76
              | ||||| | || |||
Db          1 TGAACCATATGTCAGG 16


RESULT 53
US-10-078-113-29
; Sequence 29, Application US/10078113
; Publication No. US20030220472A1
;   GENERAL INFORMATION:
;        APPLICANT: Abrams, Mark A.
;                   Bauer, S. C.
;                   Braford-Goldberg, Sarah R.
;                   Caparon, Maire H.
;                   Easton, Alan M.
;                   Klein, Barbara K.
;                   McKearn, John P.
;                   Olins, Peter O.
;                   Paik, Kumnan
;                   Thomas, John W.
;        TITLE OF INVENTION: Interleukin-3 (IL-3) Multiple Mutation
;                            Polypeptides
;        NUMBER OF SEQUENCES: 415
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Dennis A. Bennett, G.D. Searle & Co.,
;                        Corporate Patent Dept.
;             STREET: P. O. Box 5110
;             CITY: Chicago
;             STATE: Illinois
;             COUNTRY: USA
;             ZIP: 60680
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.25
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/078,113
;             FILING DATE: 19-Feb-2002
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 08/469,419
;             FILING DATE: <Unknown>
;             APPLICATION NUMBER: 08/411,795
;             FILING DATE: <Unknown>
;             APPLICATION NUMBER: PCT/US93/11197
;             FILING DATE: 22-NOV-1993
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Bennett, Dennis A.
;             REGISTRATION NUMBER: 34,547
;             REFERENCE/DOCKET NUMBER: C2713/2
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (708)470-6501
;             TELEFAX: (708)470-6881
;   INFORMATION FOR SEQ ID NO: 29:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 16 base pairs
;             TYPE: nucleic acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: DNA (synthetic)
;        SEQUENCE DESCRIPTION: SEQ ID NO: 29:
US-10-078-113-29

  Query Match             12.5%;  Score 9.6;  DB 1;  Length 16;
  Best Local Similarity   75.0%;  Pred. No. 38;
  Matches   12;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGTTAGG 76
              | ||||| | || |||
Db          1 TGAACCATATGTCAGG 16


RESULT 54
US-10-078-113-168
; Sequence 168, Application US/10078113
; Publication No. US20030220472A1
;   GENERAL INFORMATION:
;        APPLICANT: Abrams, Mark A.
;                   Bauer, S. C.
;                   Braford-Goldberg, Sarah R.
;                   Caparon, Maire H.
;                   Easton, Alan M.
;                   Klein, Barbara K.
;                   McKearn, John P.
;                   Olins, Peter O.
;                   Paik, Kumnan
;                   Thomas, John W.
;        TITLE OF INVENTION: Interleukin-3 (IL-3) Multiple Mutation
;                            Polypeptides
;        NUMBER OF SEQUENCES: 415
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Dennis A. Bennett, G.D. Searle & Co.,
;                        Corporate Patent Dept.
;             STREET: P. O. Box 5110
;             CITY: Chicago
;             STATE: Illinois
;             COUNTRY: USA
;             ZIP: 60680
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.25
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/078,113
;             FILING DATE: 19-Feb-2002
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 08/469,419
;             FILING DATE: <Unknown>
;             APPLICATION NUMBER: 08/411,795
;             FILING DATE: <Unknown>
;             APPLICATION NUMBER: PCT/US93/11197
;             FILING DATE: 22-NOV-1993
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Bennett, Dennis A.
;             REGISTRATION NUMBER: 34,547
;             REFERENCE/DOCKET NUMBER: C2713/2
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (708)470-6501
;             TELEFAX: (708)470-6881
;   INFORMATION FOR SEQ ID NO: 168:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 16 base pairs
;             TYPE: nucleic acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: DNA (synthetic)
;        SEQUENCE DESCRIPTION: SEQ ID NO: 168:
US-10-078-113-168

  Query Match             12.5%;  Score 9.6;  DB 1;  Length 16;
  Best Local Similarity   75.0%;  Pred. No. 38;
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  Matches   12;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          61 TTAACCAAACGTTAGG 76
               | ||||| | || |||
Db           1 TGAACCATATGTCAGG 16


RESULT 55
US-10-179-940-29
; Sequence 29, Application US/10179940
; Publication No. US20040018618A1
;   GENERAL INFORMATION:
;        APPLICANT: Abrams, Mark A.
;                   Bauer, S. C.
;                   Braford-Goldberg, Sarah R.
;                   Caparon, Maire H.
;                   Easton, Alan M.
;                   Klein, Barbara K.
;                   McKearn, John P.
;                   Olins, Peter O.
;                   Paik, Kumnan
;                   Polazzi, Joseph O.
;        TITLE OF INVENTION: Interleukin-3 (IL-3) Mutant Polypeptides
;        NUMBER OF SEQUENCES: 549
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Carol M. Nielsen, Gardere Wynne Sewell LLP,
;             STREET: 1601 Elm Street, Suite 3000
;             CITY: Dallas
;             STATE: Texas
;             COUNTRY: USA
;             ZIP: 75201-4761
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.25
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/179,940
;             FILING DATE: 19-Jun-2002
;             CLASSIFICATION: Unknown
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US 07/981044
;             FILING DATE: 24-NOV-1992
;             APPLICATION NUMBER: PCT/US93/11198
;             FILING DATE: 22-NOV-1993
;             APPLICATION NUMBER: US 08/411796
;             FILING DATE: 09-APR-1995
;             APPLICATION NUMBER: US 08/559390
;             FILING DATE: 15-NOV-1995
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Carol M. Nielsen
;             REGISTRATION NUMBER: 37,676
;             REFERENCE/DOCKET NUMBER: 126181-1056 (C2713/1)
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (713)276-5383
;             TELEFAX: (713)276-5555
;   INFORMATION FOR SEQ ID NO: 29:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 16 base pairs
;             TYPE: nucleic acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: DNA (synthetic)
;        SEQUENCE DESCRIPTION: SEQ ID NO: 29:
US-10-179-940-29

  Query Match             12.5%;  Score 9.6;  DB 1;  Length 16;
  Best Local Similarity   75.0%;  Pred. No. 38;
  Matches   12;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          61 TTAACCAAACGTTAGG 76
               | ||||| | || |||
Db           1 TGAACCATATGTCAGG 16


RESULT 56
US-09-249-155-245
; Sequence 245, Application US/09249155
; Publication No. US20030037345A1
; GENERAL INFORMATION:
;  APPLICANT: Heber-Katz, Ellen
;  TITLE OF INVENTION: Compositions and Methods for Wound
;  TITLE OF INVENTION: Healing
;  FILE REFERENCE: 00486.78503
;  CURRENT APPLICATION NUMBER: US/09/249,155
;  CURRENT FILING DATE: 1999-02-12
;  EARLIER APPLICATION NUMBER: 60/074,737
;  EARLIER FILING DATE: 1998-02-13
;  EARLIER APPLICATION NUMBER: 60/097,937
;  EARLIER FILING DATE: 1998-08-26
;  EARLIER APPLICATION NUMBER: 60/102,051
;  EARLIER FILING DATE: 1998-09-28
;  NUMBER OF SEQ ID NOS: 254
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 245
;   LENGTH: 11
;   TYPE: DNA
;   ORGANISM: Mus musculus
US-09-249-155-245

  Query Match             12.2%;  Score 9.4;  DB 1;  Length 11;
  Best Local Similarity   90.9%;  Pred. No. 26;
  Matches   10;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy           8 AACTGGTTCAA 18
               ||| |||||||
Db           1 AACAGGTTCAA 11


RESULT 57
US-10-314-322-245
; Sequence 245, Application US/10314322
; Publication No. US20030229911A1
; GENERAL INFORMATION:
;  APPLICANT: Heber-Katz, Ellen
;  TITLE OF INVENTION: Compositions and Methods for Wound
;  TITLE OF INVENTION:  Healing
;  FILE REFERENCE: 000486.00016
;  CURRENT APPLICATION NUMBER: US/10/314,322
;  CURRENT FILING DATE:  2002-12-09
;  PRIOR APPLICATION NUMBER: US 60/074,737
;  PRIOR FILING DATE: 1998-02-13
;  PRIOR APPLICATION NUMBER: US 60/097,937
;  PRIOR FILING DATE: 1998-08-26
;  PRIOR APPLICATION NUMBER: US 60/102,051
;  PRIOR FILING DATE: 1998-09-28
;  PRIOR APPLICATION NUMBER: US 09/249,155
;  PRIOR FILING DATE: 1999-02-12
;  NUMBER OF SEQ ID NOS: 346
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 245
;   LENGTH: 11
;   TYPE: DNA
;   ORGANISM: Mus musculus
US-10-314-322-245

  Query Match             12.2%;  Score 9.4;  DB 1;  Length 11;
  Best Local Similarity   90.9%;  Pred. No. 26;
  Matches   10;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy           8 AACTGGTTCAA 18
               ||| |||||||
Db           1 AACAGGTTCAA 11


RESULT 58
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US-10-450-797-908
; Sequence 908, Application US/10450797
; Publication No. US20040142335A1
; GENERAL INFORMATION:
;  APPLICANT: Petersohn, Dirk
;  APPLICANT:  Conradt, Marcus
;  APPLICANT:  Hofmann, Kay
;  TITLE OF INVENTION: METHOD FOR DETERMINING SKIN STRESS OR SKIN AGEING IN VITRO
;  FILE REFERENCE: HENK-0041
;  CURRENT APPLICATION NUMBER: US/10/450,797
;  CURRENT FILING DATE:  2003-12-04
;  PRIOR APPLICATION NUMBER: PCT/EP01/15178
;  PRIOR FILING DATE: 2001-12-20
;  PRIOR APPLICATION NUMBER: DE 101 00 121.5
;  PRIOR FILING DATE: 2001-01-03
;  NUMBER OF SEQ ID NOS: 1435
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 908
;   LENGTH: 11
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-450-797-908

  Query Match             12.2%;  Score 9.4;  DB 1;  Length 11;
  Best Local Similarity   90.9%;  Pred. No. 26;
  Matches   10;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         50 AAGCCGGCCCC 60
              ||||| |||||
Db          1 AAGCCAGCCCC 11


RESULT 59
US-10-450-797-1002/c
; Sequence 1002, Application US/10450797
; Publication No. US20040142335A1
; GENERAL INFORMATION:
;  APPLICANT: Petersohn, Dirk
;  APPLICANT:  Conradt, Marcus
;  APPLICANT:  Hofmann, Kay
;  TITLE OF INVENTION: METHOD FOR DETERMINING SKIN STRESS OR SKIN AGEING IN VITRO
;  FILE REFERENCE: HENK-0041
;  CURRENT APPLICATION NUMBER: US/10/450,797
;  CURRENT FILING DATE:  2003-12-04
;  PRIOR APPLICATION NUMBER: PCT/EP01/15178
;  PRIOR FILING DATE: 2001-12-20
;  PRIOR APPLICATION NUMBER: DE 101 00 121.5
;  PRIOR FILING DATE: 2001-01-03
;  NUMBER OF SEQ ID NOS: 1435
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 1002
;   LENGTH: 11
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-450-797-1002

  Query Match             12.2%;  Score 9.4;  DB 1;  Length 11;
  Best Local Similarity   90.9%;  Pred. No. 26;
  Matches   10;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         24 TCGCTTCGCTC 34
              ||||| |||||
Db         11 TCGCTGCGCTC 1


RESULT 60
US-10-094-516B-50/c
; Sequence 50, Application US/10094516B
; Publication No. US20030157494A1
; GENERAL INFORMATION:
;  APPLICANT: van Eijs, Guillaume
;  APPLICANT:  Hateboer, Guus
;  APPLICANT:  Havenga, Menzo
;  TITLE OF INVENTION: Smooth Muscle Cell Promoter and Uses Thereof
;  FILE REFERENCE: 05032-00016
;  CURRENT APPLICATION NUMBER: US/10/094,516B
;  CURRENT FILING DATE:  2002-03-08
;  NUMBER OF SEQ ID NOS: 61
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 50
;   LENGTH: 12
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-094-516B-50

  Query Match             12.2%;  Score 9.4;  DB 1;  Length 12;
  Best Local Similarity   90.9%;  Pred. No. 29;
  Matches   10;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         31 GCTCACTCGGG 41
              |||||| ||||
Db         12 GCTCACGCGGG 2


RESULT 61
US-09-990-102-8/c
; Sequence 8, Application US/09990102
; Publication No. US20030099951A1
; GENERAL INFORMATION:
;  APPLICANT: Haussler, David
;  APPLICANT:  Winters-Hilt, Stephen
;  APPLICANT:  Akeson, Mark
;  APPLICANT:  Vercoutere, Wenonah
;  TITLE OF INVENTION: Methods and Devices for Characterizing
;  TITLE OF INVENTION:  Duplex Nucleic Acid Molecules
;  FILE REFERENCE: UCAL199
;  CURRENT APPLICATION NUMBER: US/09/990,102
;  CURRENT FILING DATE:  2001-11-21
;  PRIOR APPLICATION NUMBER: 60/253,393
;  PRIOR FILING DATE: 2000-11-27
;  NUMBER OF SEQ ID NOS: 22
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 8
;   LENGTH: 13
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic oligonucleotide
US-09-990-102-8

  Query Match             12.2%;  Score 9.4;  DB 1;  Length 13;
  Best Local Similarity   90.9%;  Pred. No. 32;
  Matches   10;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         63 AACCAAACGTT 73
              ||| |||||||
Db         12 AACGAAACGTT 2


RESULT 62
US-10-156-433-31
; Sequence 31, Application US/10156433
; Publication No. US20030144489A1
; GENERAL INFORMATION:
;  APPLICANT: Burgin, Alex
;  APPLICANT:  Beigelman, Leonid
;  APPLICANT:  Bellon, Laurent
;  APPLICANT:  Zinnen, Shawn
;  APPLICANT:  Ribozyme Pharmaceuticals, Inc.
;  TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
;  FILE REFERENCE: MBHB00-943-E (500.007)
;  CURRENT APPLICATION NUMBER: US/10/156,433
;  CURRENT FILING DATE:  2002-05-28
;  PRIOR APPLICATION NUMBER: US 10/112,814
;  PRIOR FILING DATE: 2002-03-29
;  PRIOR APPLICATION NUMBER: US 09/216,584
```

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;  PRIOR FILING DATE: 1998-12-18
;  PRIOR APPLICATION NUMBER: US 09/094,381
;  PRIOR FILING DATE: 1998-06-09
;  PRIOR APPLICATION NUMBER: US 60/068,212
;  PRIOR FILING DATE: 1997-12-19
;  PRIOR APPLICATION NUMBER: US 60/049,002
;  PRIOR FILING DATE: 1997-06-09
;  NUMBER OF SEQ ID NOS: 72
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 31
;   LENGTH: 13
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-156-433-31

  Query Match             12.2%;  Score 9.4;  DB 1;  Length 13;
  Best Local Similarity   90.9%;  Pred. No. 32;
  Matches   10;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          45 GGCTAAAGCCG 55
               | |||||||||
Db           3 GCCTAAAGCCG 13


RESULT 63
US-10-112-814-31
; Sequence 31, Application US/10112814
; Publication No. US20030170644A1
; GENERAL INFORMATION:
;  APPLICANT: Alex, Burgin
;  APPLICANT:  Leonid, Beigelman
;  APPLICANT:  Laurent, Bellon
;  TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
;  FILE REFERENCE: MBHB00-943-D; 400.005
;  CURRENT APPLICATION NUMBER: US/10/112,814
;  CURRENT FILING DATE:  2002-03-29
;  PRIOR APPLICATION NUMBER: 09/216,584
;  PRIOR FILING DATE: 1998-12-18
;  PRIOR APPLICATION NUMBER: 09/094,381
;  PRIOR FILING DATE: 1998-06-09
;  PRIOR APPLICATION NUMBER: 60/068,212
;  PRIOR FILING DATE: 1997-12-19
;  PRIOR APPLICATION NUMBER: 60/049,002
;  PRIOR FILING DATE: 1997-06-09
;  NUMBER OF SEQ ID NOS: 52
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 31
;   LENGTH: 13
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   OTHER INFORMATION: Accessible site within UPA transcript
US-10-112-814-31

  Query Match             12.2%;  Score 9.4;  DB 1;  Length 13;
  Best Local Similarity   90.9%;  Pred. No. 32;
  Matches   10;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          45 GGCTAAAGCCG 55
               | |||||||||
Db           3 GCCTAAAGCCG 13


RESULT 64
US-10-338-587A-16/c
; Sequence 16, Application US/10338587A
; Publication No. US20040005319A1
; GENERAL INFORMATION:
;  APPLICANT: THE UNIVERSITY OF SOUTH FLORIDA
;  APPLICANT:  GROTENDORST, Gary R.
;  APPLICANT:  BRADHAM, Douglass M.
;  TITLE OF INVENTION: CONNECTIVE TISSUE GROWTH FACTOR
;  FILE REFERENCE: USF1100-15
;  CURRENT APPLICATION NUMBER: US/10/338,587A
;  CURRENT FILING DATE:  2003-01-07
;  PRIOR APPLICATION NUMBER: US 09/054,363
;  PRIOR FILING DATE: 1998-04-02
;  PRIOR APPLICATION NUMBER: US 08/459,717
;  PRIOR FILING DATE: 1995-06-02
;  PRIOR APPLICATION NUMBER: US 08/386,680
;  PRIOR FILING DATE: 1995-02-10
;  PRIOR APPLICATION NUMBER: US 08/167,628
;  PRIOR FILING DATE: 1993-12-14
;  PRIOR APPLICATION NUMBER: US 07/752,427
;  PRIOR FILING DATE: 1991-08-30
;  NUMBER OF SEQ ID NOS: 16
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 16
;   LENGTH: 13
;   TYPE: DNA
;   ORGANISM: Artificial sequence
;   FEATURE:
;   OTHER INFORMATION: Mutant TGF-beta response element
US-10-338-587A-16

  Query Match             12.2%;  Score 9.4;  DB 1;  Length 13;
  Best Local Similarity   90.9%;  Pred. No. 32;
  Matches   10;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          55 GGCCCCTTAAC 65
               | |||||||||
Db          13 GACCCCTTAAC 3


Search completed: October 29, 2004, 12:35:45
Job time : 0.001 secs
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GenCore version 5.1.6

OM nucleic - nucleic search, using sw model

Run on: October 29, 2004, 12:31:20 ; Search time 1 Seconds
(without alignments)
1.187 Million cell updates/sec

Title: US-09-701-626A-11
Perfect score: 77
Sequence: 1 acctaacaactggttcaagt.....cccttaaccaaacgttaggc 77

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 0.5

Searched: 397 seqs, 7705 residues

Total number of hits satisfying chosen parameters: 794

Minimum DB seq length: 10
Maximum DB seq length: 77

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 438 summaries

Database : rng11.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	77	100.0	77	1	AAZ44900	P. alcaligenes rep
2	75.4	97.9	77	1	AAZ44913	P. alcaligenes rep
3	74.4	96.6	77	1	AAZ44952	P. alcaligenes rep
4	74.4	96.6	77	1	AAZ44957	P. alcaligenes rep
5	72.8	94.5	77	1	AAZ44987	P. alcaligenes rep
6	72.4	94.0	74	1	AAZ88511	P. alcaligenes rep
7	72.4	94.0	74	1	AAZ88515	P. alcaligenes rep
8	71.8	93.2	77	1	AAZ44908	P. alcaligenes rep
9	71.8	93.2	77	1	AAZ44990	P. alcaligenes rep
10	71.8	93.2	77	1	AAZ44944	P. alcaligenes rep
11	71.4	92.7	74	1	AAZ88505	P. alcaligenes rep
12	71.2	92.5	77	1	AAZ44966	P. alcaligenes rep
13	70.6	91.7	77	1	AAZ44930	P. alcaligenes rep
14	69.8	90.6	74	1	AAZ88516	P. alcaligenes rep
15	69.8	90.6	77	1	AAZ44967	P. alcaligenes rep
16	69.6	90.4	77	1	AAZ44894	P. alcaligenes rep
17	69.6	90.4	77	1	AAZ44911	P. alcaligenes rep
18	69.2	89.9	74	1	AAZ88503	P. alcaligenes rep
19	68.6	89.1	77	1	AAZ44910	P. alcaligenes rep
20	68.6	89.1	77	1	AAZ44915	P. alcaligenes rep
21	68.6	89.1	77	1	AAZ44929	P. alcaligenes rep
22	67.6	87.8	74	1	AAZ88520	P. alcaligenes rep
23	67	87.0	77	1	AAZ44954	P. alcaligenes rep
24	66	85.7	77	1	AAZ44937	P. alcaligenes rep
25	65.6	85.2	77	1	AAZ44964	P. alcaligenes rep
26	62.4	81.0	73	1	AAZ88521	P. alcaligenes rep
27	60.3	78.3	75	1	AAZ88508	P. alcaligenes rep
28	58	75.3	74	1	AAZ88509	P. alcaligenes rep
29	57.1	74.2	75	1	AAZ88514	P. alcaligenes rep
30	57.1	74.2	76	1	AAZ44901	P. alcaligenes rep
31	56.5	73.4	76	1	AAZ44961	P. alcaligenes rep
32	56.5	73.4	76	1	AAZ44903	P. alcaligenes rep
33	56.4	73.2	74	1	AAZ88507	P. alcaligenes rep
34	55.9	72.6	76	1	AAZ44950	P. alcaligenes rep
35	55.5	72.1	76	1	AAZ44914	P. alcaligenes rep
36	55.4	71.9	76	1	AAZ44962	P. alcaligenes rep
37	40.5	52.6	52	1	AAZ44968	P. alcaligenes rep
38	33.4	43.4	43	1	AAZ44969	P. alcaligenes rep
39	27.4	35.6	34	1	ADH19155	Single-stranded ex
40	25.2	32.7	31	1	AAZ44979	P. alcaligenes rep
41	19	24.7	19	1	AAZ44973	P. alcaligenes rep
c 42	18.4	23.9	20	1	AAZ44974	P. alcaligenes rep
c 43	16.8	21.8	77	1	AAZ44990	P. alcaligenes rep
c 44	16.4	21.3	74	1	AAZ88503	P. alcaligenes rep
c 45	16.4	21.3	77	1	AAZ44937	P. alcaligenes rep
c 46	15.8	20.5	76	1	AAZ44914	P. alcaligenes rep
c 47	15.8	20.5	77	1	AAZ44894	P. alcaligenes rep
c 48	15.6	20.3	52	1	AAZ44968	P. alcaligenes rep
c 49	15.6	20.3	74	1	AAZ88511	P. alcaligenes rep
c 50	15.6	20.3	74	1	AAZ88515	P. alcaligenes rep
c 51	15.6	20.3	74	1	AAZ88505	P. alcaligenes rep
c 52	15.6	20.3	74	1	AAZ88516	P. alcaligenes rep
c 53	15.6	20.3	74	1	AAZ88520	P. alcaligenes rep
c 54	15.6	20.3	75	1	AAZ88508	P. alcaligenes rep
c 55	15.6	20.3	75	1	AAZ88514	P. alcaligenes rep
c 56	15.6	20.3	76	1	AAZ44961	P. alcaligenes rep
c 57	15.6	20.3	77	1	AAZ44900	P. alcaligenes rep
c 58	15.6	20.3	77	1	AAZ44913	P. alcaligenes rep
c 59	15.6	20.3	77	1	AAZ44952	P. alcaligenes rep
c 60	15.6	20.3	77	1	AAZ44957	P. alcaligenes rep
c 61	15.6	20.3	77	1	AAZ44987	P. alcaligenes rep
c 62	15.6	20.3	77	1	AAZ44908	P. alcaligenes rep
c 63	15.6	20.3	77	1	AAZ44944	P. alcaligenes rep
c 64	15.6	20.3	77	1	AAZ44966	P. alcaligenes rep
c 65	15.6	20.3	77	1	AAZ44930	P. alcaligenes rep
c 66	15.6	20.3	77	1	AAZ44967	P. alcaligenes rep
c 67	15.6	20.3	77	1	AAZ44911	P. alcaligenes rep
c 68	15.6	20.3	77	1	AAZ44910	P. alcaligenes rep
c 69	15.6	20.3	77	1	AAZ44915	P. alcaligenes rep
c 70	15.6	20.3	77	1	AAZ44929	P. alcaligenes rep
c 71	15.6	20.3	77	1	AAZ44954	P. alcaligenes rep
c 72	15.6	20.3	77	1	AAZ44964	P. alcaligenes rep
73	14.2	18.4	19	1	AAA87607	Rat hepatocyte car
c 74	14.2	18.4	20	1	ABI96622	Capture oligonucle
c 75	13.8	17.9	19	1	ADE06818	Cancer-related all
76	13.4	17.4	15	1	AAF51766	IGF-I oligonucleot
77	13.4	17.4	15	1	AAF52743	IGF-I oligonucleot
78	13.4	17.4	15	1	AAF52744	IGF-I oligonucleot
c 79	13.4	17.4	17	1	AAA79810	Hepatitis B virus
80	13.4	17.4	18	1	AAH40833	SNP specific upper
81	13.2	17.1	18	1	ADE43414	Human SNCG sequenc
82	13.2	17.1	18	1	ADH53892	Human neurodegener
c 83	13	16.9	76	1	AAZ44901	P. alcaligenes rep
84	12.8	16.6	17	1	AAV93448	Human B-raf substr
c 85	12.8	16.6	18	1	AAD38547	Bovine leukocyte a
86	12.4	16.1	15	1	AAF52745	IGF-I oligonucleot
87	12.4	16.1	15	1	AAF51767	IGF-I oligonucleot
88	12.4	16.1	15	1	AAF51765	IGF-I oligonucleot
89	12.4	16.1	15	1	AAF52742	IGF-I oligonucleot
c 90	12.4	16.1	17	1	AAA79809	Hepatitis B virus
c 91	12.4	16.1	17	1	AAA79811	Hepatitis B virus
c 92	12.4	16.1	17	1	ACD60629	HCV DNAzyme substr
93	12.4	16.1	17	1	ACD62041	HCV minus strand D
94	12.4	16.1	17	1	ACD62040	HCV minus strand D
95	12.4	16.1	17	1	ADI85383	HCV DNAzyme substr
96	12.4	16.1	17	1	ADI85382	HCV DNAzyme substr
c 97	12.4	16.1	17	1	ADI84681	HCV DNAzyme substr
c 98	12.4	16.1	73	1	AAZ88521	P. alcaligenes rep
c 99	12.4	16.1	74	1	AAZ88509	P. alcaligenes rep
c 100	12.4	16.1	74	1	AAZ88507	P. alcaligenes rep
c 101	12.4	16.1	76	1	AAZ44903	P. alcaligenes rep
c 102	12.4	16.1	76	1	AAZ44962	P. alcaligenes rep
c 103	12.2	15.8	17	1	ACN13607	WNV minus strand Z
104	12.2	15.8	17	1	ACN01433	WNV Inozyme substr
c 105	12.2	15.8	17	1	ACN09482	WNV minus strand H
c 106	12.2	15.8	17	1	ACD60862	HCV DNAzyme substr

107	12.2	15.8	17	1	ACD57597	HCV DNAzyme substr
c 108	12.2	15.8	17	1	ADI84802	HCV DNAzyme substr
109	12.2	15.8	17	1	ADI83161	HCV DNAzyme substr
c 110	12	15.6	12	1	ABH80747	Oligonucleotide pr
111	12	15.6	12	1	ABI24046	Oligonucleotide pr
c 112	12	15.6	13	1	ABC51264	Oligonucleotide SE
113	12	15.6	13	1	ABF52143	Oligonucleotide SE
114	12	15.6	13	1	ABC51265	Oligonucleotide SE
c 115	12	15.6	13	1	ABF52142	Oligonucleotide SE
116	12	15.6	13	1	ABH56997	Oligonucleotide SE
c 117	12	15.6	13	1	ABH56996	Oligonucleotide SE
118	12	15.6	15	1	AAZ62721	Substrate for HH r
119	12	15.6	15	1	ABX00572	Hepatitis C virus
120	12	15.6	17	1	ACD59758	HCV DNAzyme substr
c 121	12	15.6	17	1	ACD62855	HCV minus strand D
c 122	12	15.6	17	1	ADI85805	HCV DNAzyme substr
123	12	15.6	17	1	ADI84258	HCV DNAzyme substr
c 124	11.8	15.3	15	1	ACD66439	Anti-HCV enzymatic
c 125	11.8	15.3	15	1	ACD66322	Anti-HCV nucleic a
c 126	11.8	15.3	15	1	ADM81027	Oligonucleotide #2
c 127	11.8	15.3	15	1	ADI87715	Anti-HCV molecule
c 128	11.8	15.3	16	1	ADI92423	Anti-HCV enzymatic
c 129	11.6	15.1	13	1	ABF76366	Oligonucleotide SE
130	11.6	15.1	13	1	ABF76367	Oligonucleotide SE
c 131	11.4	14.8	13	1	ABC03832	Oligonucleotide SE
c 132	11.4	14.8	13	1	ABH28932	Oligonucleotide SE
133	11.4	14.8	13	1	ABC03833	Oligonucleotide SE
134	11.4	14.8	13	1	ABH28933	Oligonucleotide SE
135	11.4	14.8	13	1	ABF25293	Oligonucleotide SE
c 136	11.4	14.8	13	1	ABF25292	Oligonucleotide SE
137	11.4	14.8	15	1	AAT52258	Mouse ICAM hammerh
138	11.4	14.8	15	1	AAT52197	Mouse ICAM hammerh
139	11.4	14.8	15	1	AAF52741	IGF-I oligonucleot
140	11.4	14.8	15	1	AAF51764	IGF-I oligonucleot
141	11.4	14.8	15	1	AAF51768	IGF-I oligonucleot
142	11.4	14.8	15	1	AAF52746	IGF-I oligonucleot
c 143	11.4	14.8	15	1	AAH46687	Target virus detec
144	11.4	14.8	15	1	AAK98689	DNA mutagenesis me
145	11.4	14.8	15	1	AAK98686	DNA mutagenesis me
c 146	11.4	14.8	15	1	AAD26855	Human GPR4 gene po
147	11.4	14.8	15	1	AAS19789	ASO primer #47 to
148	11.4	14.8	15	1	AAS16735	Human APOA4 allele
c 149	11.4	14.8	16	1	AAX17954	Triplet repeat seq
c 150	11.2	14.5	16	1	AAS56734	BR1 ribozyme seque
c 151	11.2	14.5	16	1	ABS73993	Interleukin-3 muta
c 152	11.2	14.5	16	1	ABS74091	Interleukin-3 muta
c 153	11.2	14.5	16	1	ADC02569	Ex vivo stem-cell
c 154	11.2	14.5	16	1	ADC02142	Ex vivo stem cell
c 155	11.2	14.5	16	1	ADC02003	Ex vivo stem cell
c 156	11.2	14.5	16	1	ADI58244	Human interleukin
157	11	14.3	12	1	ABI30192	Oligonucleotide pr
c 158	11	14.3	12	1	ABI02556	Oligonucleotide pr
159	11	14.3	12	1	ABI26471	Oligonucleotide pr
c 160	11	14.3	12	1	ABI09738	Oligonucleotide pr
c 161	11	14.3	12	1	ABI19204	Oligonucleotide pr
c 162	11	14.3	12	1	ABI64792	Oligonucleotide pr
163	11	14.3	12	1	ABH84855	Oligonucleotide pr
164	11	14.3	13	1	ABH17153	Oligonucleotide SE
c 165	11	14.3	13	1	ABH51662	Oligonucleotide SE
c 166	11	14.3	13	1	ABC39244	Oligonucleotide SE
167	11	14.3	13	1	ABC39245	Oligonucleotide SE
c 168	11	14.3	13	1	ABC39246	Oligonucleotide SE
169	11	14.3	13	1	ABF60143	Oligonucleotide SE
c 170	11	14.3	13	1	ABC29924	Oligonucleotide SE
171	11	14.3	13	1	ABF31679	Oligonucleotide SE
c 172	11	14.3	13	1	ABH17152	Oligonucleotide SE
173	11	14.3	13	1	ABH51663	Oligonucleotide SE
174	11	14.3	13	1	ABC39247	Oligonucleotide SE
c 175	11	14.3	13	1	ABF31678	Oligonucleotide SE
c 176	11	14.3	13	1	ABH44354	Oligonucleotide SE
177	11	14.3	13	1	ABC29925	Oligonucleotide SE
178	11	14.3	13	1	ABH44355	Oligonucleotide SE
c 179	11	14.3	13	1	ABF60142	Oligonucleotide SE
c 180	11	14.3	13	1	ABH49076	Oligonucleotide SE
181	11	14.3	13	1	ABH49077	Oligonucleotide SE
182	11	14.3	15	1	AAT17240	Epimorphin upstrea
183	11	14.3	15	1	AAT62415	Epimorphin coding
184	11	14.3	15	1	AAZ62722	Substrate for HH r
185	11	14.3	15	1	AAZ62720	Substrate for HH r
186	11	14.3	15	1	ABX00571	Hepatitis C virus
187	11	14.3	15	1	ABX00573	Hepatitis C virus
c 188	11	14.3	76	1	AAZ44950	P. alcaligenes rep
c 189	10.8	14.0	15	1	AAT50334	Rabbit CETP HH rib
c 190	10.8	14.0	15	1	AAT50336	Rabbit CETP HH rib
c 191	10.8	14.0	15	1	AAZ62808	Substrate for HH r
c 192	10.8	14.0	15	1	AAF87726	PNA-DNA chimeric o
c 193	10.8	14.0	15	1	AAF29198	Oligonucleotide SE
c 194	10.8	14.0	15	1	AAC68561	Clone 20 DNA seque
c 195	10.8	14.0	15	1	AAF75701	Murine Xist gene p
196	10.8	14.0	15	1	AAF46718	IGFBP3 oligonucleo
197	10.8	14.0	15	1	AAF46719	IGFBP3 oligonucleo
c 198	10.8	14.0	15	1	ABX00659	Hepatitis C virus
c 199	10.8	14.0	15	1	ADL61688	Human p14 methylat
c 200	10.6	13.8	13	1	ABF31054	Oligonucleotide SE
c 201	10.6	13.8	13	1	ABC20880	Oligonucleotide SE
202	10.6	13.8	13	1	ABC20881	Oligonucleotide SE
203	10.6	13.8	13	1	ABF31055	Oligonucleotide SE
c 204	10.6	13.8	15	1	ABK24190	Retinaldehyde-bind
205	10.6	13.8	15	1	ABV99780	Human PFKFB2 allel
206	10.6	13.8	17	1	ACN13607	WNV minus strand Z
c 207	10.6	13.8	17	1	ACN01433	WNV Inozyme substr
208	10.6	13.8	17	1	ACN09482	WNV minus strand H
c 209	10.4	13.5	12	1	ABI21580	Oligonucleotide pr
210	10.4	13.5	12	1	ABI37357	Oligonucleotide pr
211	10.4	13.5	12	1	ABI24047	Oligonucleotide pr
212	10.4	13.5	12	1	ABH88814	Oligonucleotide pr
213	10.4	13.5	12	1	ABH76526	Oligonucleotide pr
214	10.4	13.5	12	1	ABI10237	Oligonucleotide pr
215	10.4	13.5	12	1	ABI24044	Oligonucleotide pr
216	10.4	13.5	12	1	ABH84889	Oligonucleotide pr
217	10.4	13.5	12	1	ABI17229	Oligonucleotide pr
c 218	10.4	13.5	12	1	ABI23296	Oligonucleotide pr
219	10.4	13.5	12	1	ABI09396	Oligonucleotide pr
c 220	10.4	13.5	12	1	ABI39210	Oligonucleotide pr
c 221	10.4	13.5	12	1	ABI79324	Oligonucleotide pr
222	10.4	13.5	12	1	ABI00892	Oligonucleotide pr
223	10.4	13.5	12	1	ABI65478	Oligonucleotide pr
224	10.4	13.5	12	1	ABI09522	Oligonucleotide pr
c 225	10.4	13.5	12	1	ABI24607	Oligonucleotide pr
226	10.4	13.5	12	1	ABI62668	Oligonucleotide pr
227	10.4	13.5	13	1	ABF06463	Oligonucleotide SE
c 228	10.4	13.5	13	1	ABC33108	Oligonucleotide SE
c 229	10.4	13.5	13	1	ABC64742	Oligonucleotide SE
230	10.4	13.5	13	1	ABF25289	Oligonucleotide SE
231	10.4	13.5	13	1	ABF82387	Oligonucleotide SE
232	10.4	13.5	13	1	ABH16937	Oligonucleotide SE
233	10.4	13.5	13	1	ABC90375	Oligonucleotide SE
c 234	10.4	13.5	13	1	ABC92104	Oligonucleotide SE
235	10.4	13.5	13	1	ABF65343	Oligonucleotide SE
c 236	10.4	13.5	13	1	ABH16936	Oligonucleotide SE
237	10.4	13.5	13	1	ABC33109	Oligonucleotide SE
238	10.4	13.5	13	1	ABC63143	Oligonucleotide SE
c 239	10.4	13.5	13	1	ABC90374	Oligonucleotide SE
c 240	10.4	13.5	13	1	ABC09254	Oligonucleotide SE
241	10.4	13.5	13	1	ABC14136	Oligonucleotide SE
c 242	10.4	13.5	13	1	ABF52140	Oligonucleotide SE
c 243	10.4	13.5	13	1	ABF82386	Oligonucleotide SE
244	10.4	13.5	13	1	ABH56999	Oligonucleotide SE
245	10.4	13.5	13	1	ABH58909	Oligonucleotide SE
246	10.4	13.5	13	1	ABC18089	Oligonucleotide SE
c 247	10.4	13.5	13	1	ABC47936	Oligonucleotide SE
248	10.4	13.5	13	1	ABC51267	Oligonucleotide SE
c 249	10.4	13.5	13	1	ABF25288	Oligonucleotide SE
250	10.4	13.5	13	1	ABF33591	Oligonucleotide SE
251	10.4	13.5	13	1	ABC21100	Oligonucleotide SE
c 252	10.4	13.5	13	1	ABC51266	Oligonucleotide SE

	253	10.4	13.5	13	1	ABC92105	Oligonucleotide SE
c	254	10.4	13.5	13	1	ABF19399	Oligonucleotide SE
c	255	10.4	13.5	13	1	ABC69220	Oligonucleotide SE
c	256	10.4	13.5	13	1	ABC21116	Oligonucleotide SE
c	257	10.4	13.5	13	1	ABC18088	Oligonucleotide SE
c	258	10.4	13.5	13	1	ABC21101	Oligonucleotide SE
c	259	10.4	13.5	13	1	ABC96706	Oligonucleotide SE
c	260	10.4	13.5	13	1	ABC14137	Oligonucleotide SE
	261	10.4	13.5	13	1	ABC21117	Oligonucleotide SE
	262	10.4	13.5	13	1	ABC96707	Oligonucleotide SE
c	263	10.4	13.5	13	1	ABC01742	Oligonucleotide SE
c	264	10.4	13.5	13	1	ABF33590	Oligonucleotide SE
	265	10.4	13.5	13	1	ABF52141	Oligonucleotide SE
	266	10.4	13.5	13	1	ABC01743	Oligonucleotide SE
	267	10.4	13.5	13	1	ABC09255	Oligonucleotide SE
	268	10.4	13.5	13	1	ABH58714	Oligonucleotide SE
c	269	10.4	13.5	13	1	ABC92568	Oligonucleotide SE
	270	10.4	13.5	13	1	ABC47937	Oligonucleotide SE
	271	10.4	13.5	13	1	ABC53521	Oligonucleotide SE
c	272	10.4	13.5	13	1	ABF06462	Oligonucleotide SE
	273	10.4	13.5	13	1	ABC64743	Oligonucleotide SE
c	274	10.4	13.5	13	1	ABF52144	Oligonucleotide SE
c	275	10.4	13.5	13	1	ABH58715	Oligonucleotide SE
	276	10.4	13.5	13	1	ABF52145	Oligonucleotide SE
c	277	10.4	13.5	13	1	ABC63142	Oligonucleotide SE
c	278	10.4	13.5	13	1	ABH06402	Oligonucleotide SE
	279	10.4	13.5	13	1	ABH06403	Oligonucleotide SE
c	280	10.4	13.5	13	1	ABH56998	Oligonucleotide SE
c	281	10.4	13.5	13	1	ABF65342	Oligonucleotide SE
	282	10.4	13.5	13	1	ABC92569	Oligonucleotide SE
	283	10.4	13.5	13	1	ABC69221	Oligonucleotide SE
c	284	10.4	13.5	13	1	ABC53520	Oligonucleotide SE
c	285	10.4	13.5	13	1	ABC40686	Oligonucleotide SE
	286	10.4	13.5	13	1	ABC40687	Oligonucleotide SE
	287	10.4	13.5	13	1	ABF19398	Oligonucleotide SE
c	288	10.4	13.5	13	1	ABH58908	Oligonucleotide SE
c	289	10.2	13.2	31	1	AAZ44979	P. alcaligenes rep
	290	10	13.0	10	1	AAZ84854	Metastatic breast
c	291	10	13.0	10	1	AAF36947	Yeast NORF gene SA
	292	10	13.0	10	1	ABV99804	Human PFKFB2 PCR p
	293	10	13.0	11	1	AAV40923	Primer E2A:1960L11
	294	10	13.0	11	1	ABV67424	Human skin EST 521
	295	10	13.0	11	1	ADQ33879	Human facial skin-
c	296	10	13.0	12	1	ABI09737	Oligonucleotide pr
c	297	10	13.0	12	1	ABI65343	Oligonucleotide pr
	298	10	13.0	12	1	ABI45658	Oligonucleotide pr
c	299	10	13.0	12	1	ABI59784	Oligonucleotide pr
c	300	10	13.0	12	1	ABI17394	Oligonucleotide pr
	301	10	13.0	12	1	ABI03395	Oligonucleotide pr
	302	10	13.0	12	1	ABI05541	Oligonucleotide pr
c	303	10	13.0	12	1	ABH85762	Oligonucleotide pr
	304	10	13.0	12	1	ABI54105	Oligonucleotide pr
c	305	10	13.0	12	1	ABI19658	Oligonucleotide pr
	306	10	13.0	12	1	ABH86118	Oligonucleotide pr
c	307	10	13.0	12	1	ABI38806	Oligonucleotide pr
	308	10	13.0	12	1	ABI59211	Oligonucleotide pr
c	309	10	13.0	12	1	ABI43165	Oligonucleotide pr
c	310	10	13.0	12	1	ABI59785	Oligonucleotide pr
c	311	10	13.0	12	1	ABI63788	Oligonucleotide pr
c	312	10	13.0	12	1	ABH79977	Oligonucleotide pr
	313	10	13.0	12	1	ABH84854	Oligonucleotide pr
	314	10	13.0	12	1	ABH88716	Oligonucleotide pr
c	315	10	13.0	12	1	ABI64791	Oligonucleotide pr
	316	10	13.0	12	1	ABI02552	Oligonucleotide pr
c	317	10	13.0	12	1	ABI23793	Oligonucleotide pr
	318	10	13.0	12	1	ABI30774	Oligonucleotide pr
c	319	10	13.0	12	1	ABI50579	Oligonucleotide pr
	320	10	13.0	12	1	ABI73588	Oligonucleotide pr
	321	10	13.0	12	1	ABI31939	Oligonucleotide pr
c	322	10	13.0	12	1	ABI12963	Oligonucleotide pr
c	323	10	13.0	12	1	ABI30959	Oligonucleotide pr
	324	10	13.0	12	1	ABH99100	Oligonucleotide pr
c	325	10	13.0	12	1	ABH77029	Oligonucleotide pr
	326	10	13.0	12	1	ABH97236	Oligonucleotide pr
	327	10	13.0	12	1	ABH99235	Oligonucleotide pr
c	328	10	13.0	12	1	ABI30664	Oligonucleotide pr
	329	10	13.0	12	1	ABI33514	Oligonucleotide pr
c	330	10	13.0	12	1	ABI09821	Oligonucleotide pr
	331	10	13.0	12	1	ABH82935	Oligonucleotide pr
c	332	10	13.0	12	1	ABI42230	Oligonucleotide pr
c	333	10	13.0	12	1	ABI01424	Oligonucleotide pr
	334	10	13.0	12	1	ABH81224	Oligonucleotide pr
	335	10	13.0	12	1	ABI72260	Oligonucleotide pr
	336	10	13.0	13	1	ABC46847	Oligonucleotide SE
c	337	10	13.0	13	1	ABC59036	Oligonucleotide SE
	338	10	13.0	13	1	ABC59037	Oligonucleotide SE
c	339	10	13.0	13	1	ABF18554	Oligonucleotide SE
c	340	10	13.0	13	1	ABF39264	Oligonucleotide SE
	341	10	13.0	13	1	ABF41979	Oligonucleotide SE
	342	10	13.0	13	1	ABC05273	Oligonucleotide SE
	343	10	13.0	13	1	ABC37107	Oligonucleotide SE
c	344	10	13.0	13	1	ABC39242	Oligonucleotide SE
	345	10	13.0	13	1	ABF18555	Oligonucleotide SE
c	346	10	13.0	13	1	ABF28758	Oligonucleotide SE
c	347	10	13.0	13	1	ABF42612	Oligonucleotide SE
c	348	10	13.0	13	1	ABF76364	Oligonucleotide SE
c	349	10	13.0	13	1	ABH26674	Oligonucleotide SE
c	350	10	13.0	13	1	ABH04438	Oligonucleotide SE
c	351	10	13.0	13	1	ABH33480	Oligonucleotide SE
c	352	10	13.0	13	1	ABH12852	Oligonucleotide SE
c	353	10	13.0	13	1	ABF65946	Oligonucleotide SE
c	354	10	13.0	13	1	ABH66896	Oligonucleotide SE
c	355	10	13.0	13	1	ABC31046	Oligonucleotide SE
	356	10	13.0	13	1	ABC39241	Oligonucleotide SE
	357	10	13.0	13	1	ABH26675	Oligonucleotide SE
	358	10	13.0	13	1	ABH04439	Oligonucleotide SE
	359	10	13.0	13	1	ABF91029	Oligonucleotide SE
c	360	10	13.0	13	1	ABH60594	Oligonucleotide SE
	361	10	13.0	13	1	ABH60861	Oligonucleotide SE
	362	10	13.0	13	1	ABH66897	Oligonucleotide SE
c	363	10	13.0	13	1	ABC88860	Oligonucleotide SE
	364	10	13.0	13	1	ABF23807	Oligonucleotide SE
c	365	10	13.0	13	1	ABF33316	Oligonucleotide SE
	366	10	13.0	13	1	ABH33483	Oligonucleotide SE
	367	10	13.0	13	1	ABH52889	Oligonucleotide SE
	368	10	13.0	13	1	ABF13967	Oligonucleotide SE
c	369	10	13.0	13	1	ABF23806	Oligonucleotide SE
	370	10	13.0	13	1	ABF54935	Oligonucleotide SE
c	371	10	13.0	13	1	ABF65614	Oligonucleotide SE
	372	10	13.0	13	1	ABF39265	Oligonucleotide SE
	373	10	13.0	13	1	ABF69781	Oligonucleotide SE
c	374	10	13.0	13	1	ABF78918	Oligonucleotide SE
c	375	10	13.0	13	1	ABH33482	Oligonucleotide SE
	376	10	13.0	13	1	ABH12853	Oligonucleotide SE
	377	10	13.0	13	1	ABH60595	Oligonucleotide SE
	378	10	13.0	13	1	ABF09199	Oligonucleotide SE
	379	10	13.0	13	1	ABC66915	Oligonucleotide SE
	380	10	13.0	13	1	ABF26801	Oligonucleotide SE
	381	10	13.0	13	1	ABF28759	Oligonucleotide SE
	382	10	13.0	13	1	ABC37747	Oligonucleotide SE
	383	10	13.0	13	1	ABC88861	Oligonucleotide SE
	384	10	13.0	13	1	ABF33317	Oligonucleotide SE
c	385	10	13.0	13	1	ABH34876	Oligonucleotide SE
	386	10	13.0	13	1	ABF67071	Oligonucleotide SE
c	387	10	13.0	13	1	ABF13966	Oligonucleotide SE
	388	10	13.0	13	1	ABF19396	Oligonucleotide SE
c	389	10	13.0	13	1	ABF26800	Oligonucleotide SE
	390	10	13.0	13	1	ABH52029	Oligonucleotide SE
c	391	10	13.0	13	1	ABF99752	Oligonucleotide SE
c	392	10	13.0	13	1	ABH01154	Oligonucleotide SE
	393	10	13.0	13	1	ABF78919	Oligonucleotide SE
	394	10	13.0	13	1	ABH34877	Oligonucleotide SE
c	395	10	13.0	13	1	ABC46846	Oligonucleotide SE
c	396	10	13.0	13	1	ABF01562	Oligonucleotide SE
c	397	10	13.0	13	1	ABF09198	Oligonucleotide SE
c	398	10	13.0	13	1	ABC37746	Oligonucleotide SE

c 399	10	13.0	13	1	ABC14618	Oligonucleotide SE
c 400	10	13.0	13	1	ABC66914	Oligonucleotide SE
401	10	13.0	13	1	ABF76365	Oligonucleotide SE
c 402	10	13.0	13	1	ABH28272	Oligonucleotide SE
c 403	10	13.0	13	1	ABF54934	Oligonucleotide SE
404	10	13.0	13	1	ABH33481	Oligonucleotide SE
c 405	10	13.0	13	1	ABH52888	Oligonucleotide SE
406	10	13.0	13	1	ABC24651	Oligonucleotide SE
c 407	10	13.0	13	1	ABC33036	Oligonucleotide SE
408	10	13.0	13	1	ABC39243	Oligonucleotide SE
c 409	10	13.0	13	1	ABF41978	Oligonucleotide SE
410	10	13.0	13	1	ABF42613	Oligonucleotide SE
411	10	13.0	13	1	ABF72397	Oligonucleotide SE
412	10	13.0	13	1	ABF65947	Oligonucleotide SE
c 413	10	13.0	13	1	ABF91028	Oligonucleotide SE
c 414	10	13.0	13	1	ABF67070	Oligonucleotide SE
c 415	10	13.0	13	1	ABH46508	Oligonucleotide SE
416	10	13.0	13	1	ABH59869	Oligonucleotide SE
417	10	13.0	13	1	ABF99753	Oligonucleotide SE
418	10	13.0	13	1	ABF65615	Oligonucleotide SE
419	10	13.0	13	1	ABH46509	Oligonucleotide SE
c 420	10	13.0	13	1	ABC24650	Oligonucleotide SE
421	10	13.0	13	1	ABF01563	Oligonucleotide SE
c 422	10	13.0	13	1	ABF72396	Oligonucleotide SE
c 423	10	13.0	13	1	ABH59868	Oligonucleotide SE
c 424	10	13.0	13	1	ABC05272	Oligonucleotide SE
425	10	13.0	13	1	ABC31047	Oligonucleotide SE
426	10	13.0	13	1	ABF08931	Oligonucleotide SE
427	10	13.0	13	1	ABC14619	Oligonucleotide SE
428	10	13.0	13	1	ABH01155	Oligonucleotide SE
429	10	13.0	13	1	ABH28273	Oligonucleotide SE
c 430	10	13.0	13	1	ABH52028	Oligonucleotide SE
c 431	10	13.0	13	1	ABH60860	Oligonucleotide SE
432	10	13.0	13	1	ABC33037	Oligonucleotide SE
c 433	10	13.0	13	1	ABF08930	Oligonucleotide SE
c 434	10	13.0	13	1	ABC37106	Oligonucleotide SE
c 435	10	13.0	13	1	ABC39240	Oligonucleotide SE
c 436	10	13.0	13	1	ABF19397	Oligonucleotide SE
c 437	10	13.0	13	1	ABF69780	Oligonucleotide SE
438	10	13.0	14	1	ADF35701	DNA vaccine carrie

ALIGNMENTS

RESULT 1
AAZ44900
ID AAZ44900 standard; DNA; 77 BP.
XX
AC AAZ44900;
XX
DT 16-MAY-2000 (first entry)
XX
DE P. alcaligenes repeat (PAR) element DNA #7.
XX
KW Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW detoxifying enzyme; repeat element; PAR; ss.
XX
OS Pseudomonas alcaligenes.
XX
PN WO9964632-A1.
XX
PD 16-DEC-1999.
XX
PF 11-JUN-1999; 99WO-US013295.
XX
PR 12-JUN-1998; 98US-0089086P.
PR 12-JUN-1998; 98US-0089101P.
XX
PA (NEWE) NEW ENGLAND BIOLABS INC.
XX
PI Raleigh EA, Vaisvila R, Morgan RD;
XX
DR WPI; 2000-116558/10.
XX
PT Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS Claim 7a; Page 59; 97pp; English.
XX
CC This invention describes a novel method for cloning intact, diversity-
CC selected genes (I) from within gene cassettes (GC) which comprises
CC identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC to these repeats and amplification to produce DNA fragments containing
CC (I), ligating these fragments into a vector and transforming cells with
CC the vector. This method is used to clone a wide variety of prokaryotic
CC genes that provide a selective advantage under particular conditions,
CC particularly those that encode restriction enzymes (used as reagents in
CC molecular biology); adhesins (for use in coating or for targeting
CC molecules or organisms to particular sites, e.g. for competitive
CC exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC the toxin, or in vaccination, or a modification methyltransferase. Intact
CC genes can be cloned directly with a high probability that the orientation
CC of expression is known in advance and low probability of association with
CC extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC the invention
XX
SQ Sequence 77 BP; 18 A; 26 C; 17 G; 16 T; 0 U; 0 Other;

Query Match 100.0%; Score 77; DB 1; Length 77;
Best Local Similarity 100.0%; Pred. No. 1.7e-10;
Matches 77; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 ACCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 ACCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCC 60

Qy         61 TTAACCAAACGTTAGGC 77
              |||||||||||||||||
Db         61 TTAACCAAACGTTAGGC 77
```

RESULT 2
AAZ44913
ID AAZ44913 standard; DNA; 77 BP.
XX
AC AAZ44913;
XX
DT 16-MAY-2000 (first entry)
XX
DE P. alcaligenes repeat (PAR) element DNA #20.
XX
KW Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW detoxifying enzyme; repeat element; PAR; ss.
XX
OS Pseudomonas alcaligenes.
XX
PN WO9964632-A1.
XX
PD 16-DEC-1999.
XX
PF 11-JUN-1999; 99WO-US013295.
XX
PR 12-JUN-1998; 98US-0089086P.
PR 12-JUN-1998; 98US-0089101P.
XX
PA (NEWE) NEW ENGLAND BIOLABS INC.
XX
PI Raleigh EA, Vaisvila R, Morgan RD;
XX
DR WPI; 2000-116558/10.
XX
PT Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS Claim 7a; Page 59; 97pp; English.

```
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 18 A; 25 C; 17 G; 17 T; 0 U; 0 Other;

  Query Match             97.9%;  Score 75.4;  DB 1;  Length 77;
  Best Local Similarity   98.7%;  Pred. No. 3.4e-10;
  Matches   76;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCC 60
              ||||||||| ||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 ACCTAACAATTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCC 60

Qy         61 TTAACCAAACGTTAGGC 77
              |||||||||||||||||
Db         61 TTAACCAAACGTTAGGC 77


RESULT 3
AAZ44952
ID   AAZ44952 standard; DNA; 77 BP.
XX
AC   AAZ44952;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #59.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 18 A; 25 C; 18 G; 16 T; 0 U; 0 Other;

  Query Match             96.6%;  Score 74.4;  DB 1;  Length 77;
  Best Local Similarity   98.7%;  Pred. No. 5.4e-10;
  Matches   75;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61
              |||||||| ||||||||||||||||||||||||||||||||||||||||||||||||||
Db          2 CCTAACAAATGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61

Qy         62 TAACCAAACGTTAGGC 77
              ||||||||||||||||
Db         62 TAACCAAACGTTAGGC 77


RESULT 4
AAZ44957
ID   AAZ44957 standard; DNA; 77 BP.
XX
AC   AAZ44957;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #64.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
```

```
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 16 A; 26 C; 18 G; 17 T; 0 U; 0 Other;

  Query Match             96.6%;  Score 74.4;  DB 1;  Length 77;
  Best Local Similarity   98.7%;  Pred. No. 5.4e-10;
  Matches   75;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61
              |||||| ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          2 CCTAACTACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61

Qy         62 TAACCAAACGTTAGGC 77
              ||||||||||||||||
Db         62 TAACCAAACGTTAGGC 77


RESULT 5
AAZ44987
ID   AAZ44987 standard; DNA; 77 BP.
XX
AC   AAZ44987;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element family 1 consensus DNA #3.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; family 1; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 6A; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44985-Z44987 represents Pseudomonas
CC   alcaligenes repeat (PAR) element family 1 consensus sequences described
CC   in the method of the invention
XX
SQ   Sequence 77 BP; 17 A; 26 C; 18 G; 16 T; 0 U; 0 Other;

  Query Match             94.5%;  Score 72.8;  DB 1;  Length 77;
  Best Local Similarity   97.4%;  Pred. No. 1.1e-09;
  Matches   74;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61
              |||||||| ||||||||| ||||||||||||||||||||||||||||||||||||||||
Db          2 CCTAACAATTGGTTCAAGCCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61

Qy         62 TAACCAAACGTTAGGC 77
              ||||||||||||||||
Db         62 TAACCAAACGTTAGGC 77


RESULT 6
AAZ88511
ID   AAZ88511 standard; DNA; 74 BP.
XX
AC   AAZ88511;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA PARf8.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC   alcaligenes repeat (PAR) elements described in the method of the
CC   invention
XX
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SQ   Sequence 74 BP; 18 A; 23 C; 17 G; 16 T; 0 U; 0 Other;

  Query Match             94.0%;  Score 72.4;  DB 1;  Length 74;
  Best Local Similarity   98.6%;  Pred. No. 1.3e-09;
  Matches   73;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          3 CTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 62
              ||||||| ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 CTAACAAATGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 60

Qy         63 AACCAAACGTTAGG 76
              ||||||||||||||
Db         61 AACCAAACGTTAGG 74


RESULT 7
AAZ88515
ID   AAZ88515 standard; DNA; 74 BP.
XX
AC   AAZ88515;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA PARf12.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC   alcaligenes repeat (PAR) elements described in the method of the
CC   invention
XX
SQ   Sequence 74 BP; 16 A; 24 C; 17 G; 17 T; 0 U; 0 Other;

  Query Match             94.0%;  Score 72.4;  DB 1;  Length 74;
  Best Local Similarity   98.6%;  Pred. No. 1.3e-09;
  Matches   73;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          3 CTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 62
              ||||| ||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 CTAACTACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 60

Qy         63 AACCAAACGTTAGG 76
              ||||||||||||||
Db         61 AACCAAACGTTAGG 74


RESULT 8
AAZ44908
ID   AAZ44908 standard; DNA; 77 BP.
XX
AC   AAZ44908;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #15.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 59; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 18 A; 26 C; 17 G; 16 T; 0 U; 0 Other;

  Query Match             93.2%;  Score 71.8;  DB 1;  Length 77;
  Best Local Similarity   97.3%;  Pred. No. 1.8e-09;
  Matches   73;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          3 CTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 62
              ||||||| ||||||||||||| ||||||||||||||||||||||||||||||||||||||
Db          3 CTAACAAATGGTTCAAGTCGCTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 62
```

```
Qy          63 AACCAAACGTTAGGC 77
               |||||||||||||||
Db          63 AACCAAACGTTAGGC 77


RESULT 9
AAZ44990
ID   AAZ44990 standard; DNA; 77 BP.
XX
AC   AAZ44990;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element family 2 consensus DNA #3.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; family 2; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 6B; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44988-Z44990 represents Pseudomonas
CC   alcaligenes repeat (PAR) element family 2 consensus sequences described
CC   in the method of the invention
XX
SQ   Sequence 77 BP; 16 A; 26 C; 20 G; 15 T; 0 U; 0 Other;

  Query Match             93.2%;  Score 71.8;  DB 1;  Length 77;
  Best Local Similarity   97.3%;  Pred. No. 1.8e-09;
  Matches   73;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy           2 CCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61
               |||||||||||||||||||| |||||||||| ||||||||||||||||||||||||||
Db           2 CCTAACAACTGGTTCAAGTCGCTCGCTTCGCTCGCTCGGGACCGGCTAAAGCCGGCCCCT 61

Qy          62 TAACCAAACGTTAGG 76
               |||||||||||||||
Db          62 TAACCAAACGTTAGG 76


RESULT 10
AAZ44944
ID   AAZ44944 standard; DNA; 77 BP.
XX
AC   AAZ44944;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #51.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 16 A; 26 C; 16 G; 19 T; 0 U; 0 Other;

  Query Match             93.2%;  Score 71.8;  DB 1;  Length 77;
  Best Local Similarity   97.3%;  Pred. No. 1.8e-09;
  Matches   73;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy           3 CTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 62
               ||||| ||||||||||||||||||||||||||||||||||||||||||||||||||||
Db           3 CTAACTACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 62

Qy          63 AACCAAACGTTAGGC 77
               ||||||||||||| |
Db          63 AACCAAACGTTAGCC 77


RESULT 11
AAZ88505
ID   AAZ88505 standard; DNA; 74 BP.
XX
AC   AAZ88505;
```

```
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA PARf2.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC   alcaligenes repeat (PAR) elements described in the method of the
CC   invention
XX
SQ   Sequence 74 BP; 16 A; 25 C; 16 G; 17 T; 0 U; 0 Other;

  Query Match             92.7%;  Score 71.4;  DB 1;  Length 74;
  Best Local Similarity   98.6%;  Pred. No. 2e-09;
  Matches   72;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          3 CTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 62
              ||||| |||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 CTAACTACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 60

Qy         63 AACCAAACGTTAG 75
              |||||||||||||
Db         61 AACCAAACGTTAG 73


RESULT 12
AAZ44966
ID   AAZ44966 standard; DNA; 77 BP.
XX
AC   AAZ44966;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #73.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 61; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 19 A; 26 C; 17 G; 15 T; 0 U; 0 Other;

  Query Match             92.5%;  Score 71.2;  DB 1;  Length 77;
  Best Local Similarity   96.1%;  Pred. No. 2.3e-09;
  Matches   73;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61
              |||||||| ||||||||| ||||||||||||||||||||||||||||||||||||||||
Db          2 CCTAACAAATGGTTCAAGCCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61

Qy         62 TAACCAAACGTTAGGC 77
              |||||||||||||| |
Db         62 TAACCAAACGTTAGAC 77


RESULT 13
AAZ44930
ID   AAZ44930 standard; DNA; 77 BP.
XX
AC   AAZ44930;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #37.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
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PN WO9964632-A1.
XX
PD 16-DEC-1999.
XX
PF 11-JUN-1999; 99WO-US013295.
XX
PR 12-JUN-1998; 98US-0089086P.
PR 12-JUN-1998; 98US-0089101P.
XX
PA (NEWE) NEW ENGLAND BIOLABS INC.
XX
PI Raleigh EA, Vaisvila R, Morgan RD;
XX
DR WPI; 2000-116558/10.
XX
PT Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS Claim 7a; Page 60; 97pp; English.
XX
CC This invention describes a novel method for cloning intact, diversity-
CC selected genes (I) from within gene cassettes (GC) which comprises
CC identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC to these repeats and amplification to produce DNA fragments containing
CC (I), ligating these fragments into a vector and transforming cells with
CC the vector. This method is used to clone a wide variety of prokaryotic
CC genes that provide a selective advantage under particular conditions,
CC particularly those that encode restriction enzymes (used as reagents in
CC molecular biology); adhesins (for use in coating or for targeting
CC molecules or organisms to particular sites, e.g. for competitive
CC exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC the toxin, or in vaccination, or a modification methyltransferase. Intact
CC genes can be cloned directly with a high probability that the orientation
CC of expression is known in advance and low probability of association with
CC extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC the invention
XX
SQ Sequence 77 BP; 17 A; 27 C; 18 G; 15 T; 0 U; 0 Other;

Query Match 91.7%; Score 70.6; DB 1; Length 77;
Best Local Similarity 94.8%; Pred. No. 3.1e-09;
Matches 73; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
Qy          1 ACCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCC 60
              ||||||| | |||||||||| || ||||||||||||||||||||||||||||||||||||
Db          1 ACCTAACTAGTGGTTCAAGCCGCTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCC 60

Qy         61 TTAACCAAACGTTAGGC 77
              |||||||||||||||||
Db         61 TTAACCAAACGTTAGGC 77
```

RESULT 14
AAZ88516
ID AAZ88516 standard; DNA; 74 BP.
XX
AC AAZ88516;
XX
DT 16-MAY-2000 (first entry)
XX
DE P. alcaligenes repeat (PAR) element DNA PARf13.
XX
KW Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW detoxifying enzyme; repeat element; PAR; ss.
XX
OS Pseudomonas alcaligenes.
XX
PN WO9964632-A1.
XX
PD 16-DEC-1999.
XX
PF 11-JUN-1999; 99WO-US013295.
XX
PR 12-JUN-1998; 98US-0089086P.
PR 12-JUN-1998; 98US-0089101P.
XX
PA (NEWE) NEW ENGLAND BIOLABS INC.
XX
PI Raleigh EA, Vaisvila R, Morgan RD;
XX
DR WPI; 2000-116558/10.
XX
PT Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS Example 1B; Fig 3E; 97pp; English.
XX
CC This invention describes a novel method for cloning intact, diversity-
CC selected genes (I) from within gene cassettes (GC) which comprises
CC identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC to these repeats and amplification to produce DNA fragments containing
CC (I), ligating these fragments into a vector and transforming cells with
CC the vector. This method is used to clone a wide variety of prokaryotic
CC genes that provide a selective advantage under particular conditions,
CC particularly those that encode restriction enzymes (used as reagents in
CC molecular biology); adhesins (for use in coating or for targeting
CC molecules or organisms to particular sites, e.g. for competitive
CC exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC the toxin, or in vaccination, or a modification methyltransferase. Intact
CC genes can be cloned directly with a high probability that the orientation
CC of expression is known in advance and low probability of association with
CC extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC alcaligenes repeat (PAR) elements described in the method of the
CC invention
XX
SQ Sequence 74 BP; 19 A; 24 C; 16 G; 15 T; 0 U; 0 Other;

Query Match 90.6%; Score 69.8; DB 1; Length 74;
Best Local Similarity 97.3%; Pred. No. 4.2e-09;
Matches 71; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

```
Qy          3 CTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 62
              ||||||| |||||||| ||||||||||||||||||||||||||||||||||||||||||
Db          1 CTAACAAATGGTTCAAGCCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 60

Qy         63 AACCAAACGTTAG 75
              |||||||||||||
Db         61 AACCAAACGTTAG 73
```

RESULT 15
AAZ44967
ID AAZ44967 standard; DNA; 77 BP.
XX
AC AAZ44967;
XX
DT 16-MAY-2000 (first entry)
XX
DE P. alcaligenes repeat (PAR) element DNA #74.
XX
KW Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW detoxifying enzyme; repeat element; PAR; ss.
XX
OS Pseudomonas alcaligenes.
XX
PN WO9964632-A1.
XX
PD 16-DEC-1999.
XX
PF 11-JUN-1999; 99WO-US013295.
XX
PR 12-JUN-1998; 98US-0089086P.
PR 12-JUN-1998; 98US-0089101P.
XX
PA (NEWE) NEW ENGLAND BIOLABS INC.

```
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 61; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 19 A; 25 C; 17 G; 16 T; 0 U; 0 Other;

  Query Match             90.6%;  Score 69.8;  DB 1;  Length 77;
  Best Local Similarity   97.3%;  Pred. No. 4.4e-09;
  Matches   71;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          3 CTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 62
              ||||||| ||||||||| ||||||||||||||||||||||||||||||||||||||||||
Db          3 CTAACAAATGGTTCAAGCCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 62

Qy         63 AACCAAACGTTAG 75
              |||||||||||||
Db         63 AACCAAACGTTAG 75


RESULT 16
AAZ44894
ID   AAZ44894 standard; DNA; 77 BP.
XX
AC   AAZ44894;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #1.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 59; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 17 A; 24 C; 18 G; 18 T; 0 U; 0 Other;

  Query Match             90.4%;  Score 69.6;  DB 1;  Length 77;
  Best Local Similarity   94.7%;  Pred. No. 4.9e-09;
  Matches   72;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCC 60
              | ||||||| ||||||||||| ||||||||||||||||||||||||||||||||||||
Db          1 ATCTAACAATTGGTTCAAGTCGCTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCC 60

Qy         61 TTAACCAAACGTTAGG 76
              |||||||| |||||||
Db         61 TTAACCAAGCGTTAGG 76


RESULT 17
AAZ44911
ID   AAZ44911 standard; DNA; 77 BP.
XX
AC   AAZ44911;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #18.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 59; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
```

```
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 16 A; 28 C; 18 G; 15 T; 0 U; 0 Other;

  Query Match             90.4%;  Score 69.6;  DB 1;  Length 77;
  Best Local Similarity   94.7%;  Pred. No. 4.9e-09;
  Matches   72;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61
              ||||||  |||||||||  || ||||||||||||||||||||||||||||||||||||||
Db          2 CCTAACTAGTGGTTCAAGCCGCTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61

Qy         62 TAACCAAACGTTAGGC 77
              ||||||||||||||||
Db         62 TAACCAAACGTTAGGC 77


RESULT 18
AAZ88503
ID   AAZ88503 standard; DNA; 74 BP.
XX
AC   AAZ88503;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element consensus DNA #3.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. This sequence represents a Pseudomonas
CC   alcaligenes repeat (PAR) element consensus sequence described in the
CC   method of the invention
XX
SQ   Sequence 74 BP; 16 A; 24 C; 18 G; 16 T; 0 U; 0 Other;

  Query Match             89.9%;  Score 69.2;  DB 1;  Length 74;
  Best Local Similarity   95.9%;  Pred. No. 5.5e-09;
  Matches   71;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          3 CTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 62
              |||||||  |||||||||||||  |||||||||||  ||||||||||||||||||||||||||
Db          1 CTAACAATTGGTTCAAGTCGCTCGCTTCGCTCGCTCGGGACCGGCTAAAGCCGGCCCCTT 60

Qy         63 AACCAAACGTTAGG 76
              ||||||||||||||
Db         61 AACCAAACGTTAGG 74


RESULT 19
AAZ44910
ID   AAZ44910 standard; DNA; 77 BP.
XX
AC   AAZ44910;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #17.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 59; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
```

```
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 18 A; 27 C; 19 G; 13 T; 0 U; 0 Other;

  Query Match             89.1%;  Score 68.6;  DB 1;  Length 77;
  Best Local Similarity   94.7%;  Pred. No. 7.7e-09;
  Matches   71;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61
              || ||||| |||||||||||| ||||| ||||||||||||||||||||||||||||||||
Db          2 CCCAACAAATGGTTCAAGTCGCTCGCTCCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61

Qy         62 TAACCAAACGTTAGG 76
              |||||||||||||||
Db         62 TAACCAAACGTTAGG 76


RESULT 20
AAZ44915
ID   AAZ44915 standard; DNA; 77 BP.
XX
AC   AAZ44915;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #22.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 59; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 18 A; 25 C; 17 G; 17 T; 0 U; 0 Other;

  Query Match             89.1%;  Score 68.6;  DB 1;  Length 77;
  Best Local Similarity   94.7%;  Pred. No. 7.7e-09;
  Matches   71;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61
              ||||||||  |||||||||||||||||| ||||||||||||||||||||||||||||||
Db          2 CCTAACAATGCGTTCAAGTCGTTCGCTTCACTCACTCGGGACCGGCTAAAGCCGGCCCCT 61

Qy         62 TAACCAAACGTTAGG 76
              |||||||||||||||
Db         62 TAACCAAACGTTAGG 76


RESULT 21
AAZ44929
ID   AAZ44929 standard; DNA; 77 BP.
XX
AC   AAZ44929;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #36.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 18 A; 24 C; 18 G; 17 T; 0 U; 0 Other;
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  Query Match             89.1%;  Score 68.6;  DB 1;  Length 77;
  Best Local Similarity   94.7%;  Pred. No. 7.7e-09;
  Matches   71;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61
              ||||||||  |||||||||| |||||||||||||| ||||||||||||||||||||||||
Db          2 CCTAACAATAGGTTCAAGTCGCTCGCTTCGCTCACTTGGGACCGGCTAAAGCCGGCCCCT 61

Qy         62 TAACCAAACGTTAGG 76
              |||||||||||||||
Db         62 TAACCAAACGTTAGG 76


RESULT 22
AAZ88520
ID   AAZ88520 standard; DNA; 74 BP.
XX
AC   AAZ88520;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA PARf17.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC   alcaligenes repeat (PAR) elements described in the method of the
CC   invention
XX
SQ   Sequence 74 BP; 19 A; 23 C; 16 G; 16 T; 0 U; 0 Other;

  Query Match             87.8%;  Score 67.6;  DB 1;  Length 74;
  Best Local Similarity   94.6%;  Pred. No. 1.1e-08;
  Matches   70;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          3 CTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 62
              ||||||| ||||| ||  ||||||||||||||||||||||||||||||||||||||||||
Db          1 CTAACAATTGGTTAAAACCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 60

Qy         63 AACCAAACGTTAGG 76
              ||||||||||||||
Db         61 AACCAAACGTTAGG 74


RESULT 23
AAZ44954
ID   AAZ44954 standard; DNA; 77 BP.
XX
AC   AAZ44954;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #61.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 18 A; 25 C; 18 G; 16 T; 0 U; 0 Other;

  Query Match             87.0%;  Score 67;  DB 1;  Length 77;
  Best Local Similarity   93.3%;  Pred. No. 1.6e-08;
  Matches   70;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCC 60
              | ||||||  ||||||||| || ||||||||||||||||||||||||||||||||||||
Db          1 ATCTAACATGTGGTTCAAGCCGCTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCC 60

Qy         61 TTAACCAAACGTTAG 75
              |||||||||||||||
```

```
Db         61 TTAACCAAACGTTAG 75


RESULT 24
AAZ44937
ID   AAZ44937 standard; DNA; 77 BP.
XX
AC   AAZ44937;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #44.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 19 A; 25 C; 17 G; 16 T; 0 U; 0 Other;

  Query Match             85.7%;  Score 66;  DB 1;  Length 77;
  Best Local Similarity   93.2%;  Pred. No. 2.5e-08;
  Matches   69;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61
              ||||||| |||||||||||  |||||||||||  |||||||||||||||||||||||||
Db          2 CCTAACAAATGGTTCAAGTCACTCGCTTCGCTCGTTCGGGACCGGCTAAAGCCGGCCCCT 61

Qy         62 TAACCAAACGTTAG 75
              ||||||||||||||
Db         62 TAACCAAACGTTAG 75


RESULT 25
AAZ44964
ID   AAZ44964 standard; DNA; 77 BP.
XX
AC   AAZ44964;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #71.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 19 A; 23 C; 17 G; 18 T; 0 U; 0 Other;

  Query Match             85.2%;  Score 65.6;  DB 1;  Length 77;
  Best Local Similarity   94.4%;  Pred. No. 3e-08;
  Matches   68;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy          4 TAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTTA 63
              |||||| |||||||||||  |||||||||||||||||||||||||||||||||||||
Db          4 TAACAATTGGTTCAAGTCACTCGCTTCGCTCGCTCGGGACCGGCTAAAGCCGGCCCCTTA 63

Qy         64 ACCAAACGTTAG 75
              ||||||||||||
Db         64 ACCAAACGTTAG 75


RESULT 26
AAZ88521
ID   AAZ88521 standard; DNA; 73 BP.
XX
AC   AAZ88521;
XX
DT   16-MAY-2000  (first entry)
```

```
XX
DE   P. alcaligenes repeat (PAR) element DNA PARf18.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC   alcaligenes repeat (PAR) elements described in the method of the
CC   invention
XX
SQ   Sequence 73 BP; 17 A; 24 C; 16 G; 16 T; 0 U; 0 Other;

  Query Match             81.0%;  Score 62.4;  DB 1;  Length 73;
  Best Local Similarity   91.7%;  Pred. No. 1.2e-07;
  Matches   66;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy          3 CTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 62
              |||||||||||||||| || |||||||||||||||||||||||||||  |||||||||
Db          1 CTAACAACTGGTTCAAGCCGCTCGCTTCGCTCACTCGGGACCGGCTAAATTCGGCCCCTT 60

Qy         63 AACCAAACGTTA 74
              |  |||||||||
Db         61 AGGCAAACGTTA 72


RESULT 27
AAZ88508
ID   AAZ88508 standard; DNA; 75 BP.
XX
AC   AAZ88508;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA PARf5.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC   alcaligenes repeat (PAR) elements described in the method of the
CC   invention
XX
SQ   Sequence 75 BP; 18 A; 23 C; 17 G; 17 T; 0 U; 0 Other;

  Query Match             78.3%;  Score 60.3;  DB 1;  Length 75;
  Best Local Similarity   96.0%;  Pred. No. 3.3e-07;
  Matches   72;  Conservative    0;  Mismatches    2;  Indels    1;  Gaps    1;

Qy          3 CTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACT-CGGGACCGGCTAAAGCCGGCCCCT 61
              ||||||| || |||||||||||||||||||||||| |||||||||||||||||||||||
Db          1 CTAACAATTGATTCAAGTCGTTCGCTTCGCTCACTGCGGGACCGGCTAAAGCCGGCCCCT 60

Qy         62 TAACCAAACGTTAGG 76
              |||||||||||||||
Db         61 TAACCAAACGTTAGG 75


RESULT 28
AAZ88509
ID   AAZ88509 standard; DNA; 74 BP.
XX
AC   AAZ88509;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA PARf6.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
```

```
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC   alcaligenes repeat (PAR) elements described in the method of the
CC   invention
XX
SQ   Sequence 74 BP; 13 A; 26 C; 17 G; 18 T; 0 U; 0 Other;

  Query Match             75.3%;  Score 58;  DB 1;  Length 74;
  Best Local Similarity   86.5%;  Pred. No. 9.2e-07;
  Matches   64;  Conservative    0;  Mismatches   10;  Indels    0;  Gaps    0;

Qy          3 CTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 62
              ||||| ||||||||||||  ||||||||||  |||||||||  |   ||||||||||
Db          1 CTAACTACTGGTTCAAGTCACTCGCTTCGCTCGTTCGGGACCGCGTTCCGCCGGCCCCTT 60

Qy         63 AACCAAACGTTAGG 76
              ||||||||||||||
Db         61 AACCAAACGTTAGG 74


RESULT 29
AAZ88514
ID   AAZ88514 standard; DNA; 75 BP.
XX
AC   AAZ88514;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA PARf11.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC   alcaligenes repeat (PAR) elements described in the method of the
CC   invention
XX
SQ   Sequence 75 BP; 16 A; 23 C; 19 G; 17 T; 0 U; 0 Other;

  Query Match             74.2%;  Score 57.1;  DB 1;  Length 75;
  Best Local Similarity   93.3%;  Pred. No. 1.4e-06;
  Matches   70;  Conservative    0;  Mismatches    4;  Indels    1;  Gaps    1;

Qy          3 CTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACT-CGGGACCGGCTAAAGCCGGCCCCT 61
              ||||||| |||||||  |||||||||||||||||| |||||||||| ||||||||||
Db          1 CTAACAATTGGTTCAGATCGTTCGCTTCGCTCACTGCGGGACCGGCTGAAGCCGGCCCCT 60

Qy         62 TAACCAAACGTTAGG 76
              |||||||||||||||
Db         61 TAACCAAACGTTAGG 75


RESULT 30
AAZ44901
ID   AAZ44901 standard; DNA; 76 BP.
XX
AC   AAZ44901;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #8.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
```

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XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 59; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 76 BP; 15 A; 25 C; 20 G; 16 T; 0 U; 0 Other;

  Query Match             74.2%;  Score 57.1;  DB 1;  Length 76;
  Best Local Similarity   93.3%;  Pred. No. 1.4e-06;
  Matches   70;  Conservative    0;  Mismatches    4;  Indels    1;  Gaps    1;

Qy          2 CCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61
              |||||||| ||| ||||||||||||||||||||||||||||||||||  ||||||||||||
Db          2 CCTAACAATTGGCTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCG-AAGCCGGCCCCT 60

Qy         62 TAACCAAACGTTAGG 76
              || ||||||||||||
Db         61 TAGCCAAACGTTAGG 75


RESULT 31
AAZ44961
ID   AAZ44961 standard; DNA; 76 BP.
XX
AC   AAZ44961;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #68.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 76 BP; 20 A; 22 C; 16 G; 18 T; 0 U; 0 Other;

  Query Match             73.4%;  Score 56.5;  DB 1;  Length 76;
  Best Local Similarity   92.1%;  Pred. No. 1.9e-06;
  Matches   70;  Conservative    0;  Mismatches    5;  Indels    1;  Gaps    1;

Qy          1 ACCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCC 60
              | ||||||| ||||| ||  |||||||||||||||| ||||||||||||||||||||||
Db          1 ATCTAACAATTGGTTAAAACCGTTCGCTTCGCTCACT-GGGACCGGCTAAAGCCGGCCCC 59

Qy         61 TTAACCAAACGTTAGG 76
              ||||||||||||||||
Db         60 TTAACCAAACGTTAGG 75


RESULT 32
AAZ44903
ID   AAZ44903 standard; DNA; 76 BP.
XX
AC   AAZ44903;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #10.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 59; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
```

```
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 76 BP; 18 A; 25 C; 18 G; 15 T; 0 U; 0 Other;

  Query Match             73.4%;  Score 56.5;  DB 1;  Length 76;
  Best Local Similarity   92.1%;  Pred. No. 1.9e-06;
  Matches   70;  Conservative    0;  Mismatches    5;  Indels    1;  Gaps    1;

Qy          2 CCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61
              |||||||| ||||||||  |||||||||||||||| ||||| |||||||||| ||||||
Db          2 CCTAACAAGTGGTTCAAACCGTTCGCTTCGCTCACT-GGGACGGGCTAAAGCCCGCCCCT 60

Qy         62 TAACCAAACGTTAGGC 77
              ||||||||||||||||
Db         61 TAACCAAACGTTAGGC 76


RESULT 33
AAZ88507
ID   AAZ88507 standard; DNA; 74 BP.
XX
AC   AAZ88507;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA PARf4.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3B; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC   alcaligenes repeat (PAR) elements described in the method of the
CC   invention
XX
SQ   Sequence 74 BP; 14 A; 28 C; 17 G; 15 T; 0 U; 0 Other;

  Query Match             73.2%;  Score 56.4;  DB 1;  Length 74;
  Best Local Similarity   85.1%;  Pred. No. 1.9e-06;
  Matches   63;  Conservative    0;  Mismatches   11;  Indels    0;  Gaps    0;

Qy          3 CTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 62
              |||||||||||||||| |  || |||||||| |||||||||  |   ||||||||||
Db          1 CTAACAACTGGTTCAAGCCACTCACTTCGCTCGCTCGGGACCGCGTTCCGCCGGCCCCTT 60

Qy         63 AACCAAACGTTAGG 76
              ||||||||||| ||
Db         61 AACCAAACGTTGGG 74


RESULT 34
AAZ44950
ID   AAZ44950 standard; DNA; 76 BP.
XX
AC   AAZ44950;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #57.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
```

```
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 76 BP; 16 A; 25 C; 18 G; 17 T; 0 U; 0 Other;

  Query Match             72.6%;  Score 55.9;  DB 1;  Length 76;
  Best Local Similarity   90.9%;  Pred. No. 2.5e-06;
  Matches   70;  Conservative    0;  Mismatches    6;  Indels    1;  Gaps    1;

Qy          1 ACCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCC 60
              | ||||||| ||| ||||||||||||||||||||||||||||||||  ||||||||||
Db          1 ATCTAACAATTGGCTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCG-AAGCCGGCCCC 59

Qy         61 TTAACCAAACGTTAGGC 77
              ||| |||||||||| ||
Db         60 TTAGCCAAACGTTATGC 76


RESULT 35
AAZ44914
ID   AAZ44914 standard; DNA; 76 BP.
XX
AC   AAZ44914;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #21.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 59; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 76 BP; 16 A; 25 C; 18 G; 17 T; 0 U; 0 Other;

  Query Match             72.1%;  Score 55.5;  DB 1;  Length 76;
  Best Local Similarity   92.0%;  Pred. No. 3e-06;
  Matches   69;  Conservative    0;  Mismatches    5;  Indels    1;  Gaps    1;

Qy          2 CCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61
              |||||||||||||||||||  ||||||||||  ||||||||||  | ||||||||||
Db          2 CCTAACAACTGGTTCAAGTCACTCGCTTCGCTCGTTCGGGACCGGC-ATAGCCGGCCCCT 60

Qy         62 TAACCAAACGTTAGG 76
              |||||||||||||||
Db         61 TAACCAAACGTTAGG 75


RESULT 36
AAZ44962
ID   AAZ44962 standard; DNA; 76 BP.
XX
AC   AAZ44962;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #69.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 76 BP; 17 A; 24 C; 16 G; 19 T; 0 U; 0 Other;

  Query Match             71.9%;  Score 55.4;  DB 1;  Length 76;
  Best Local Similarity   90.8%;  Pred. No. 3.1e-06;
```

```
  Matches   59;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy          4 TAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTTA 63
              |||||||||||||||| || ||||||||||||||||||||||||||||  ||||||||||
Db          4 TAACAACTGGTTCAAGCCGCTCGCTTCGCTCACTCGGGACCGGCTAAATTCGGCCCCTTA 63

Qy         64 ACCAA 68
                | ||
Db         64 GCAAA 68


RESULT 37
AAZ44968
ID   AAZ44968 standard; DNA; 52 BP.
XX
AC   AAZ44968;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #75.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 10; Page 62; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 52 BP; 11 A; 19 C; 12 G; 10 T; 0 U; 0 Other;

  Query Match             52.6%;  Score 40.5;  DB 1;  Length 52;
  Best Local Similarity   98.1%;  Pred. No. 0.0016;
  Matches   51;  Conservative    0;  Mismatches    0;  Indels    1;  Gaps    1;

Qy         24 TCGCTTCGCTCACT-CGGGACCGGCTAAAGCCGGCCCCTTAACCAAACGTTA 74
              ||||||||||||||| |||||||||||||||||||||||||||||||||||
Db          1 TCGCTTCGCTCACTGCGGGACCGGCTAAAGCCGGCCCCTTAACCAAACGTTA 52


RESULT 38
AAZ44969
ID   AAZ44969 standard; DNA; 43 BP.
XX
AC   AAZ44969;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #76.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 10; Page 62; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 43 BP; 8 A; 12 C; 11 G; 12 T; 0 U; 0 Other;

  Query Match             43.4%;  Score 33.4;  DB 1;  Length 43;
  Best Local Similarity   86.0%;  Pred. No. 0.03;
  Matches   37;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy          4 TAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGG 46
              |||||| |||||||||||||||||||||||||  ||  | |
Db          1 TAACAATTGGTTCAAGTCGTTCGCTTCGCTCACTGCGGGACCG 43


RESULT 39
ADH19155
ID   ADH19155 standard; DNA; 34 BP.
XX
AC   ADH19155;
XX
DT   11-MAR-2004  (first entry)
```

```
XX
DE   Single-stranded extension-related PCR primer Pal3-3 - SEQ ID 29.
XX
KW   single-stranded extension; endonuclease; site-specific mutation;
KW   directional cloning; chromosomal; environmental;
KW   cDNA library construction; ss; primer; PCR; Pal3-3.
XX
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   modified_base   6
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "OTHER = 8-oxo-guanine"
XX
PN   US2003194736-A1.
XX
PD   16-OCT-2003.
XX
PF   04-APR-2003; 2003US-00407637.
XX
PR   12-APR-2002; 2002US-0372352P.
PR   15-APR-2002; 2002US-0372675P.
PR   24-OCT-2002; 2002US-0421010P.
XX
PA   (BITI/) BITINAITE J.
XX
PI   Bitinaite J;
XX
DR   WPI; 2003-875399/81.
XX
PT   Producing single-stranded extension with desired length, composition on
PT   polynucleotide by inserting cassette into polynucleotide, cleaving with
PT   endonuclease, dissociating polynucleotide to produce single-strand
PT   extension.
XX
PS   Example 12; SEQ ID NO 29; 82pp; English.
XX
CC   The invention relates to a novel method for generating a single-stranded
CC   extension having a desired length and composition within a polynucleotide
CC   by introducing a cassette into the polynucleotide at a predetermined
CC   location, cleaving the polynucleotide with a nicking endonuclease and
CC   with restriction endonuclease and dissociating the cleaved polynucleotide
CC   between the nicking site and restriction site to generate a single-strand
CC   extension with a desired length and sequence composition. The method of
CC   the invention may be useful for creating a site-specific mutation within
CC   a target, for joining several linear polynucleotide molecules to form a
CC   single molecule and for inserting a target molecule into a recipient
CC   molecule. Additional applications include directional cloning of PCR
CC   products, chromosomal/environmental DNA cloning outside the boundaries of
CC   a known sequence and construction of cDNA libraries. The current sequence
CC   is that of the single-stranded extension-related PCR primer which was
CC   used in the exemplification of the invention.
XX
SQ   Sequence 34 BP; 9 A; 10 C; 8 G; 6 T; 0 U; 1 Other;

  Query Match             35.6%;  Score 27.4;  DB 1;  Length 34;
  Best Local Similarity   93.3%;  Pred. No. 0.32;
  Matches   28;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         45 GGCTAAAGCCGGCCCCTTAACCAAACGTTA 74
              | |||||||| ||||||||||||||||||||
Db          5 GNCTAAAGCCTGCCCCTTAACCAAACGTTA 34


RESULT 40
AAZ44979
ID   AAZ44979 standard; DNA; 31 BP.
XX
AC   AAZ44979;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #86.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 10; Page 62; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 31 BP; 8 A; 10 C; 6 G; 7 T; 0 U; 0 Other;

  Query Match             32.7%;  Score 25.2;  DB 1;  Length 31;
  Best Local Similarity   90.0%;  Pred. No. 0.77;
  Matches   27;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         46 GCTAAAGCCGGCCCCTTAACCAAACGTTAG 75
              |||  || ||||||||||||||||||||||
Db          2 GCTCTAGACGGCCCCTTAACCAAACGTTAG 31


RESULT 41
AAZ44973
ID   AAZ44973 standard; DNA; 19 BP.
XX
AC   AAZ44973;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #80.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
```

```
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 10; Page 62; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 19 BP; 6 A; 7 C; 2 G; 4 T; 0 U; 0 Other;

  Query Match             24.7%;  Score 19;  DB 1;  Length 19;
  Best Local Similarity   100.0%;  Pred. No. 6.1;
  Matches   19;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAACGTTA 74
              |||||||||||||||||||
Db          1 GCCCCTTAACCAAACGTTA 19


RESULT 42
AAZ44974/c
ID   AAZ44974 standard; DNA; 20 BP.
XX
AC   AAZ44974;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #81.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 10; Page 62; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 20 BP; 5 A; 5 C; 9 G; 1 T; 0 U; 0 Other;

  Query Match             23.9%;  Score 18.4;  DB 1;  Length 20;
  Best Local Similarity   95.0%;  Pred. No. 8.6;
  Matches   19;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCGCTCACTCGG 40
              || |||||||||||||||||
Db         20 CGCTCGCTTCGCTCACTCGG 1


RESULT 43
AAZ44990/c
ID   AAZ44990 standard; DNA; 77 BP.
XX
AC   AAZ44990;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element family 2 consensus DNA #3.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; family 2; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 6B; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
```

```
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44988-Z44990 represents Pseudomonas
CC   alcaligenes repeat (PAR) element family 2 consensus sequences described
CC   in the method of the invention
XX
SQ   Sequence 77 BP; 16 A; 26 C; 20 G; 15 T; 0 U; 0 Other;

  Query Match             21.8%;  Score 16.8;  DB 1;  Length 77;
  Best Local Similarity   51.3%;  Pred. No. 97;
  Matches   39;  Conservative    0;  Mismatches   37;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61
              ||||||   ||||| | |        || ||    | | | || ||    |   | |
Db         76 CCTAACGTTTGGTTAAGGGGCCGGCTTTAGCCGGTCCCGAGCGAGCGAAGCGAGCGACTT 17

Qy         62 TAACCAAACGTTAGGC 77
                |||||   |||||||
Db         16 GAACCAGTTGTTAGGC 1


RESULT 44
AAZ88503/c
ID   AAZ88503 standard; DNA; 74 BP.
XX
AC   AAZ88503;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element consensus DNA #3.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. This sequence represents a Pseudomonas
CC   alcaligenes repeat (PAR) element consensus sequence described in the
CC   method of the invention
XX
SQ   Sequence 74 BP; 16 A; 24 C; 18 G; 16 T; 0 U; 0 Other;

  Query Match             21.3%;  Score 16.4;  DB 1;  Length 74;
  Best Local Similarity   51.4%;  Pred. No. 1.1e+02;
  Matches   38;  Conservative    0;  Mismatches   36;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCT 61
              ||||||   ||||| | |        || ||    | | | || ||    |   | |
Db         74 CCTAACGTTTGGTTAAGGGGCCGGCTTTAGCCGGTCCCGAGCGAGCGAAGCGAGCGACTT 15

Qy         62 TAACCAAACGTTAG 75
                |||||   |||||
Db         14 GAACCAATTGTTAG 1


RESULT 45
AAZ44937/c
ID   AAZ44937 standard; DNA; 77 BP.
XX
AC   AAZ44937;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #44.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
```

```
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 19 A; 25 C; 17 G; 16 T; 0 U; 0 Other;

  Query Match             21.3%;  Score 16.4;  DB 1;  Length 77;
  Best Local Similarity   51.4%;  Pred. No. 1.1e+02;
  Matches   38;  Conservative    0;  Mismatches   36;  Indels    0;  Gaps    0;

Qy          3 CTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTT 62
              |||||   |||||  | |         || ||     | | ||  || ||    |   | |
Db         75 CTAACGTTTGGTTAAGGGGCCGGCTTTAGCCGGTCCCGAACGAGCGAAGCGAGTGACTTG 16

Qy         63 AACCAAACGTTAGG 76
              |||||   ||||||
Db         15 AACCATTTGTTAGG 2


RESULT 46
AAZ44914/c
ID   AAZ44914 standard; DNA; 76 BP.
XX
AC   AAZ44914;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #21.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 59; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 76 BP; 16 A; 25 C; 18 G; 17 T; 0 U; 0 Other;

  Query Match             20.5%;  Score 15.8;  DB 1;  Length 76;
  Best Local Similarity   52.2%;  Pred. No. 1.2e+02;
  Matches   35;  Conservative    0;  Mismatches   32;  Indels    0;  Gaps    0;

Qy         11 TGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTTAACCAAAC 70
              | | | |||  |   |||  ||     | | ||  || ||    |   | | |||||
Db         67 TTGGTTAAGGGGCCGGCTATGCCGGTCCCGAACGAGCGAAGCGAGTGACTTGAACCAGTT 8

Qy         71 GTTAGGC 77
              |||||||
Db          7 GTTAGGC 1


RESULT 47
AAZ44894/c
ID   AAZ44894 standard; DNA; 77 BP.
XX
AC   AAZ44894;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #1.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 59; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 17 A; 24 C; 18 G; 18 T; 0 U; 0 Other;
```

```
  Query Match             20.5%;  Score 15.8;  DB 1;  Length 77;
  Best Local Similarity   50.7%;  Pred. No. 1.2e+02;
  Matches   38;  Conservative    0;  Mismatches   37;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAACTGGTTCAAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCC 60
              |||||||   |||||  | |         || ||     | |     || ||    |   |
Db         77 ACCTAACGCTTGGTTAAGGGGCCGGCTTTAGCCGGTCCCGAGTGAGCGAAGCGAGCGACT 18

Qy         61 TTAACCAAACGTTAG 75
              | ||||||  |||||
Db         17 TGAACCAATTGTTAG 3


RESULT 48
AAZ44968/c
ID   AAZ44968 standard; DNA; 52 BP.
XX
AC   AAZ44968;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #75.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 10; Page 62; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 52 BP; 11 A; 19 C; 12 G; 10 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 52;
  Best Local Similarity   81.8%;  Pred. No. 1.1e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         38 GGGGCCGGCTTTAGCCGGTCCC 17


RESULT 49
AAZ88511/c
ID   AAZ88511 standard; DNA; 74 BP.
XX
AC   AAZ88511;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA PARf8.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC   alcaligenes repeat (PAR) elements described in the method of the
CC   invention
XX
SQ   Sequence 74 BP; 18 A; 23 C; 17 G; 16 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 74;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         58 GGGGCCGGCTTTAGCCGGTCCC 37


RESULT 50
AAZ88515/c
ID   AAZ88515 standard; DNA; 74 BP.
XX
AC   AAZ88515;
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XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA PARf12.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC   alcaligenes repeat (PAR) elements described in the method of the
CC   invention
XX
SQ   Sequence 74 BP; 16 A; 24 C; 17 G; 17 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 74;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         58 GGGGCCGGCTTTAGCCGGTCCC 37


RESULT 51
AAZ88505/c
ID   AAZ88505 standard; DNA; 74 BP.
XX
AC   AAZ88505;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA PARf2.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC   alcaligenes repeat (PAR) elements described in the method of the
CC   invention
XX
SQ   Sequence 74 BP; 16 A; 25 C; 16 G; 17 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 74;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         58 GGGGCCGGCTTTAGCCGGTCCC 37


RESULT 52
AAZ88516/c
ID   AAZ88516 standard; DNA; 74 BP.
XX
AC   AAZ88516;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA PARf13.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
```

```
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC   alcaligenes repeat (PAR) elements described in the method of the
CC   invention
XX
SQ   Sequence 74 BP; 19 A; 24 C; 16 G; 15 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 74;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         58 GGGGCCGGCTTTAGCCGGTCCC 37


RESULT 53
AAZ88520/c
ID   AAZ88520 standard; DNA; 74 BP.
XX
AC   AAZ88520;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA PARf17.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC   alcaligenes repeat (PAR) elements described in the method of the
CC   invention
XX
SQ   Sequence 74 BP; 19 A; 23 C; 16 G; 16 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 74;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         58 GGGGCCGGCTTTAGCCGGTCCC 37


RESULT 54
AAZ88508/c
ID   AAZ88508 standard; DNA; 75 BP.
XX
AC   AAZ88508;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA PARf5.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
```

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CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC   alcaligenes repeat (PAR) elements described in the method of the
CC   invention
XX
SQ   Sequence 75 BP; 18 A; 23 C; 17 G; 17 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 75;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         59 GGGGCCGGCTTTAGCCGGTCCC 38


RESULT 55
AAZ88514/c
ID   AAZ88514 standard; DNA; 75 BP.
XX
AC   AAZ88514;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA PARf11.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC   alcaligenes repeat (PAR) elements described in the method of the
CC   invention
XX
SQ   Sequence 75 BP; 16 A; 23 C; 19 G; 17 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 75;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         59 GGGGCCGGCTTCAGCCGGTCCC 38


RESULT 56
AAZ44961/c
ID   AAZ44961 standard; DNA; 76 BP.
XX
AC   AAZ44961;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #68.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 76 BP; 20 A; 22 C; 16 G; 18 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 76;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;
```

```
Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         59 GGGGCCGGCTTTAGCCGGTCCC 38


RESULT 57
AAZ44900/c
ID   AAZ44900 standard; DNA; 77 BP.
XX
AC   AAZ44900;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #7.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 59; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 18 A; 26 C; 17 G; 16 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 77;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         60 GGGGCCGGCTTTAGCCGGTCCC 39


RESULT 58
AAZ44913/c
ID   AAZ44913 standard; DNA; 77 BP.
XX
AC   AAZ44913;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #20.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 59; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 18 A; 25 C; 17 G; 17 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 77;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         60 GGGGCCGGCTTTAGCCGGTCCC 39


RESULT 59
AAZ44952/c
ID   AAZ44952 standard; DNA; 77 BP.
XX
AC   AAZ44952;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #59.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
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OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 18 A; 25 C; 18 G; 16 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 77;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         60 GGGGCCGGCTTTAGCCGGTCCC 39


RESULT 60
AAZ44957/c
ID   AAZ44957 standard; DNA; 77 BP.
XX
AC   AAZ44957;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #64.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 16 A; 26 C; 18 G; 17 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 77;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         60 GGGGCCGGCTTTAGCCGGTCCC 39


RESULT 61
AAZ44987/c
ID   AAZ44987 standard; DNA; 77 BP.
XX
AC   AAZ44987;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element family 1 consensus DNA #3.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; family 1; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
```

```
XX
PS   Example 1B; Fig 6A; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44985-Z44987 represents Pseudomonas
CC   alcaligenes repeat (PAR) element family 1 consensus sequences described
CC   in the method of the invention
XX
SQ   Sequence 77 BP; 17 A; 26 C; 18 G; 16 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 77;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         60 GGGGCCGGCTTTAGCCGGTCCC 39


RESULT 62
AAZ44908/c
ID   AAZ44908 standard; DNA; 77 BP.
XX
AC   AAZ44908;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #15.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 59; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 18 A; 26 C; 17 G; 16 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 77;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         60 GGGGCCGGCTTTAGCCGGTCCC 39


RESULT 63
AAZ44944/c
ID   AAZ44944 standard; DNA; 77 BP.
XX
AC   AAZ44944;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #51.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
```

```
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 16 A; 26 C; 16 G; 19 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 77;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         60 GGGGCCGGCTTTAGCCGGTCCC 39


RESULT 64
AAZ44966/c
ID   AAZ44966 standard; DNA; 77 BP.
XX
AC   AAZ44966;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #73.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 61; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 19 A; 26 C; 17 G; 15 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 77;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         60 GGGGCCGGCTTTAGCCGGTCCC 39


RESULT 65
AAZ44930/c
ID   AAZ44930 standard; DNA; 77 BP.
XX
AC   AAZ44930;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #37.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 17 A; 27 C; 18 G; 15 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 77;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         60 GGGGCCGGCTTTAGCCGGTCCC 39


RESULT 66
AAZ44967/c
ID   AAZ44967 standard; DNA; 77 BP.
```

```
XX
AC   AAZ44967;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #74.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 61; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 19 A; 25 C; 17 G; 16 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 77;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         60 GGGGCCGGCTTTAGCCGGTCCC 39


RESULT 67
AAZ44911/c
ID   AAZ44911 standard; DNA; 77 BP.
XX
AC   AAZ44911;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #18.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 59; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 16 A; 28 C; 18 G; 15 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 77;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         60 GGGGCCGGCTTTAGCCGGTCCC 39


RESULT 68
AAZ44910/c
ID   AAZ44910 standard; DNA; 77 BP.
XX
AC   AAZ44910;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #17.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
```

```
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 59; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 18 A; 27 C; 19 G; 13 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 77;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         60 GGGGCCGGCTTTAGCCGGTCCC 39


RESULT 69
AAZ44915/c
ID   AAZ44915 standard; DNA; 77 BP.
XX
AC   AAZ44915;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #22.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 59; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 18 A; 25 C; 17 G; 17 T; 0 U; 0 Other;

  Query Match             20.3%;  Score 15.6;  DB 1;  Length 77;
  Best Local Similarity   81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         60 GGGGCCGGCTTTAGCCGGTCCC 39


RESULT 70
AAZ44929/c
ID   AAZ44929 standard; DNA; 77 BP.
XX
AC   AAZ44929;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #36.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
```

```
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 18 A; 24 C; 18 G; 17 T; 0 U; 0 Other;

  Query Match            20.3%;  Score 15.6;  DB 1;  Length 77;
  Best Local Similarity  81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         60 GGGGCCGGCTTTAGCCGGTCCC 39


RESULT 71
AAZ44954/c
ID   AAZ44954 standard; DNA; 77 BP.
XX
AC   AAZ44954;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #61.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 18 A; 25 C; 18 G; 16 T; 0 U; 0 Other;

  Query Match            20.3%;  Score 15.6;  DB 1;  Length 77;
  Best Local Similarity  81.8%;  Pred. No. 1.3e+02;
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         60 GGGGCCGGCTTTAGCCGGTCCC 39


RESULT 72
AAZ44964/c
ID   AAZ44964 standard; DNA; 77 BP.
XX
AC   AAZ44964;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #71.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 77 BP; 19 A; 23 C; 17 G; 18 T; 0 U; 0 Other;

  Query Match            20.3%;  Score 15.6;  DB 1;  Length 77;
  Best Local Similarity  81.8%;  Pred. No. 1.3e+02;
```

```
  Matches   18;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| ||||||  |||||| |||
Db         60 GGGGCCGGCTTTAGCCGGTCCC 39


RESULT 73
AAA87607
ID   AAA87607 standard; DNA; 19 BP.
XX
AC   AAA87607;
XX
DT   08-JAN-2001  (first entry)
XX
DE   Rat hepatocyte carcinogenesis biomarker nucleic acid SEQ ID NO:531.
XX
KW   Rat; phenobarbitol; carcinogenesis marker; carcinogenesis; detection;
KW   identification; carcinogenic; probe; primer; ds.
XX
OS   Rattus norvegicus.
XX
PN   WO200044902-A2.
XX
PD   03-AUG-2000.
XX
PF   28-JAN-2000; 2000WO-US000503.
XX
PR   29-JAN-1999;   99US-0118078P.
XX
PA   (SEAR ) SEARLE & CO G D.
XX
PI   Bunch RT,  Curtis SW,  Rodi CP,  Morris DL;
XX
DR   WPI; 2000-505977/45.
XX
PT   New nucleic acid encoding a carcinogenic biomarker, induced by
PT   phenobarbitol treatment of rat hepatocytes, useful for identifying
PT   carcinogenic compounds.
XX
PS   Claim 1; Page 230; 240pp; English.
XX
CC   AAA87080 to AAA87656 represent nucleic acid sequences (N1) encoding a
CC   carcinogenesis biomarkers. The carcinogenesis biomarkers are induced by
CC   treating rat hepatocytes with phenobarbitol. The nucleic acids are useful
CC   for identifying carcinogenic compounds. The nucleic acid molecules can be
CC   used to derive probes and/or primers for detecting or inducing
CC   carcinogenesis, respectively
XX
SQ   Sequence 19 BP; 6 A; 5 C; 7 G; 1 T; 0 U; 0 Other;

  Query Match             18.4%;  Score 14.2;  DB 1;  Length 19;
  Best Local Similarity   84.2%;  Pred. No. 52;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         41 GACCGGCTAAAGCCGGCCC 59
              || |||||||| |||| |
Db          1 GAGCGGCTAAAGACGGCAC 19


RESULT 74
ABI96622/c
ID   ABI96622 standard; DNA; 20 BP.
XX
AC   ABI96622;
XX
DT   16-FEB-2002  (first entry)
XX
DE   Capture oligonucleptide Zip ID#3709 oligo #9.
XX
KW   Human; K-ras; PCR primer; probe; capture probe; mutation detection;
KW   ligase detection reaction; LDR; p53; BRCA1; BRCA2; infectious disease;
KW   infection; 21 hydroxylase deficiency; Turner Syndrome; obesity; cancer;
KW   oncogene; tumour suppressor; human papillomavirus; forensic;
KW   environmental monitoring; food industry; feed industry; ss.
XX
OS   Synthetic.
XX
PN   WO200179548-A2.
XX
PD   25-OCT-2001.
XX
PF   04-APR-2001; 2001WO-US010958.
XX
PR   14-APR-2000; 2000US-0197271P.
XX
PA   (CORR ) CORNELL RES FOUND INC.
XX
PI   Barany F,  Zirvi M,  Gerry NP,  Favis R,  Kliman R;
XX
DR   WPI; 2002-034366/04.
XX
PT   Designing capture oligonucleotide probes for use on a support to which
PT   complementary oligonucleotides hybridize with little mismatch.
XX
PS   Example 5; Fig 29; 300pp; English.
XX
CC   The present invention describes a method (M1) for designing capture
CC   oligonucleotide probes (I) for use on a support to which complementary
CC   oligonucleotide probes (II) will hybridise with little mismatch, where
CC   (I) have melting temperatures within a narrow range. The method is useful
CC   for detecting infectious diseases caused by bacterial infectious agents
CC   e.g. Salmonella, Listeria monocytogenes and Haemophilus influenza, fungal
CC   infectious agents e.g. Cryptococcus neoformans, Candida albicans and
CC   Aspergillus fumigautus, viruses e.g. T-cell lymphocytotrophis cirus,
CC   Epstein-Barr virus and polio virus, and parasitic infectious agents
CC   selected from Onchoverva volvulus, Entamoeba histolytica and Dracunculus
CC   medinesis. The method is also useful for detecting genetic diseases such
CC   as 21 hydroxylase deficiency, Turner Syndrome and obesity defects.
CC   Detecting cancer involving oncogenes, tumour suppressor genes, or genes
CC   involved in DNA amplification, replication, recombination or repair, the
CC   cancer is specifically associated with a gene selected from BRCA1 gene,
CC   p53 gene, human papillomavirus types 16 and 18 and liver cancers. The
CC   method is also used for environmental monitoring, forensics and the food
CC   and feed industry, detecting comprises scanning (using e.g. a scanning
CC   electron microscope and infrared microscope) the support at the
CC   particular sites and identifying if ligation of the oligonucleotide probe
CC   sets occurred and correlating (using a computer) identified ligation to a
CC   presence or absence of the target nucleotide sequences. ABI82074 to
CC   ABI97546 represent oligonucleotide sequences used in the exemplification
CC   of the present invention
XX
SQ   Sequence 20 BP; 6 A; 7 C; 5 G; 2 T; 0 U; 0 Other;

  Query Match             18.4%;  Score 14.2;  DB 1;  Length 20;
  Best Local Similarity   84.2%;  Pred. No. 56;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         19 GTCGTTCGCTTCGCTCACT 37
              |||| ||| || |||||||
Db         19 GTCGGTCGATTGGCTCACT 1


RESULT 75
ADE06818/c
ID   ADE06818 standard; DNA; 19 BP.
XX
AC   ADE06818;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Cancer-related allelic imbalance detection primer #41.
XX
KW   in vitro detection; cancer; tumor cell; allelic imbalance;
KW   chromosome marker; quantitative multiplex amplification; bladder tumor;
KW   urine; blood; primer; ss; chromosome 2q; chromosome 3p; chromosome 4p;
```

```
KW   chromosome 4q; chromosome 5q; chromosome 6q; chromosome 8p;
KW   chromosome 9p; chromosome 9q; chromosome 10q; chromosome 11q;
KW   chromosome 11p; chromosome 13q; chromosome 14q; chromosome 16q;
KW   chromosome 17p; chromosome 18q.
XX
OS   Homo sapiens.
XX
PN   WO2003072823-A2.
XX
PD   04-SEP-2003.
XX
PF   25-FEB-2003; 2003WO-FR000609.
XX
PR   25-FEB-2002; 2002FR-00002380.
XX
PA   (ASSI-) ASSISTANCE PUBLIQUE HOPITAUX PARIS.
XX
PI   Grandchamp B,  Mentre F;
XX
DR   WPI; 2003-697769/66.
XX
PT   In vitro detection of tumor cells, in a biological sample, uses a
PT   highlight of allelic imbalance in insertion-deletion chromosome markers.
XX
PS   Claim 15; SEQ ID NO 41; 51pp; French.
XX
CC   The invention relates to a method of in vitro detection of cancer tumor
CC   cells, in a biological sample, where allelic imbalances are highlighted
CC   in insertion-deletion chromosome markers. The markers are given a
CC   quantitative multiplex amplification by polymerase chain reaction (PCR),
CC   triggered by heat. A calculation is made of a global statistical score
CC   for all the markers being studied, for comparison with a fixed normal
CC   threshold. The technique is especially for the detection of bladder tumor
CC   cells in a urine sample, using a blood sample as the reference. The non-
CC   invasive method gives evidence of an allelic imbalance with at least 15
CC   chromosome insertion-deletion markers and preferably 18, or at least 30
CC   or at least 40 markers. This sequence represents a primer used in the
CC   method of the invention.
XX
SQ   Sequence 19 BP; 2 A; 2 C; 8 G; 7 T; 0 U; 0 Other;

  Query Match             17.9%;  Score 13.8;  DB 1;  Length 19;
  Best Local Similarity   88.2%;  Pred. No. 62;
  Matches   15;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         47 CTAAAGCCGGCCCCTTA 63
              ||||||| ||||| ||
Db         19 CTAAAGCCAGCCCCATA 3


RESULT 76
AAF51766
ID   AAF51766 standard; DNA; 15 BP.
XX
AC   AAF51766;
XX
DT   30-MAR-2001  (first entry)
XX
DE   IGF-I oligonucleotide #2726.
XX
KW   Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
KW   cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
KW   skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
KW   IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
KW   growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
KW   keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
KW   hyperneovascular condition; hyperplasia; kidney disease;
KW   neovascular condition of the retina; ss.
XX
OS   Homo sapiens.
XX
PN   WO200078341-A1.
XX
PD   28-DEC-2000.
XX
PF   21-JUN-2000; 2000WO-AU000693.
XX
PR   21-JUN-1999;   99US-0140345P.
XX
PA   (MURD-) MURDOCH CHILDRENS RES INST.
XX
PI   Wraight CJ,  Werther GA,  Edmondson SR;
XX
DR   WPI; 2001-041421/05.
XX
PT   Ameliorating the effects of a disorder, e.g. psoriasis, by administering
PT   UV (ultra-violet) treatment (optional) and an antisense nucleic acid that
PT   inhibits or reduces growth factor mediated cell proliferation and/or
PT   inflammation.
XX
PS   Example 8; Page 78; 201pp; English.
XX
CC   The present invention relates to a method for ameliorating the effects of
CC   skin disorders. The method comprises contacting the skin with an
CC   antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
CC   receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
CC   inhibiting or reducing growth factor mediated cell proliferation,
CC   inflammation and/or other disorders. The present sequence is an
CC   oligonucleotide which can be used to design the antisense
CC   oligonucleotides of the present invention (see AAF45151 and AAF45153-
CC   F45161). The method is useful for ameliorating the effects of psoriasis,
CC   ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis,
CC   neoplasias, scleroderma, warts, benign growths, cancers of the skin, a
CC   hyperneovascular condition such as a neovascular condition of the retina,
CC   brain or skin, growth factor-mediated malignancies, other sclerotic
CC   disease, kidney disease, hyperproliferation of the inside of blood
CC   vessels or any other hyperplasia
XX
SQ   Sequence 15 BP; 4 A; 6 C; 4 G; 1 T; 0 U; 0 Other;

  Query Match             17.4%;  Score 13.4;  DB 1;  Length 15;
  Best Local Similarity   93.3%;  Pred. No. 53;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         42 ACCGGCTAAAGCCGG 56
              |||||||||| ||||
Db          1 ACCGGCTAAACCCGG 15


RESULT 77
AAF52743
ID   AAF52743 standard; DNA; 15 BP.
XX
AC   AAF52743;
XX
DT   30-MAR-2001  (first entry)
XX
DE   IGF-I oligonucleotide #3703.
XX
KW   Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
KW   cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
KW   skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
KW   IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
KW   growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
KW   keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
KW   hyperneovascular condition; hyperplasia; kidney disease;
KW   neovascular condition of the retina; ss.
XX
OS   Homo sapiens.
XX
PN   WO200078341-A1.
XX
PD   28-DEC-2000.
XX
PF   21-JUN-2000; 2000WO-AU000693.
XX
```

PR 21-JUN-1999; 99US-0140345P.
XX
PA (MURD-) MURDOCH CHILDRENS RES INST.
XX
PI Wraight CJ, Werther GA, Edmondson SR;
XX
DR WPI; 2001-041421/05.
XX
PT Ameliorating the effects of a disorder, e.g. psoriasis, by administering
PT UV (ultra-violet) treatment (optional) and an antisense nucleic acid that
PT inhibits or reduces growth factor mediated cell proliferation and/or
PT inflammation.
XX
PS Example 8; Page 85; 201pp; English.
XX
CC The present invention relates to a method for ameliorating the effects of
CC skin disorders. The method comprises contacting the skin with an
CC antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
CC receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
CC inhibiting or reducing growth factor mediated cell proliferation,
CC inflammation and/or other disorders. The present sequence is an
CC oligonucleotide which can be used to design the antisense
CC oligonucleotides of the present invention (see AAF45151 and AAF45153-
CC F45161). The method is useful for ameliorating the effects of psoriasis,
CC ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis,
CC neoplasias, scleroderma, warts, benign growths, cancers of the skin, a
CC hyperneovascular condition such as a neovascular condition of the retina,
CC brain or skin, growth factor-mediated malignancies, other sclerotic
CC disease, kidney disease, hyperproliferation of the inside of blood
CC vessels or any other hyperplasia
XX
SQ Sequence 15 BP; 2 A; 6 C; 2 G; 5 T; 0 U; 0 Other;

Query Match 17.4%; Score 13.4; DB 1; Length 15;
Best Local Similarity 93.3%; Pred. No. 53;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 16 CAAGTCGTTCGCTTC 30
||||||.|||||||||
Db 1 CAAGTCCTTCGCTTC 15

RESULT 78
AAF52744
ID AAF52744 standard; DNA; 15 BP.
XX
AC AAF52744;
XX
DT 30-MAR-2001 (first entry)
XX
DE IGF-I oligonucleotide #3704.
XX
KW Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
KW cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
KW skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
KW IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
KW growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
KW keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
KW hyperneovascular condition; hyperplasia; kidney disease;
KW neovascular condition of the retina; ss.
XX
OS Homo sapiens.
XX
PN WO200078341-A1.
XX
PD 28-DEC-2000.
XX
PF 21-JUN-2000; 2000WO-AU000693.
XX
PR 21-JUN-1999; 99US-0140345P.
XX
PA (MURD-) MURDOCH CHILDRENS RES INST.
XX
PI Wraight CJ, Werther GA, Edmondson SR;
XX
DR WPI; 2001-041421/05.
XX
PT Ameliorating the effects of a disorder, e.g. psoriasis, by administering
PT UV (ultra-violet) treatment (optional) and an antisense nucleic acid that
PT inhibits or reduces growth factor mediated cell proliferation and/or
PT inflammation.
XX
PS Example 8; Page 85; 201pp; English.
XX
CC The present invention relates to a method for ameliorating the effects of
CC skin disorders. The method comprises contacting the skin with an
CC antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
CC receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
CC inhibiting or reducing growth factor mediated cell proliferation,
CC inflammation and/or other disorders. The present sequence is an
CC oligonucleotide which can be used to design the antisense
CC oligonucleotides of the present invention (see AAF45151 and AAF45153-
CC F45161). The method is useful for ameliorating the effects of psoriasis,
CC ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis,
CC neoplasias, scleroderma, warts, benign growths, cancers of the skin, a
CC hyperneovascular condition such as a neovascular condition of the retina,
CC brain or skin, growth factor-mediated malignancies, other sclerotic
CC disease, kidney disease, hyperproliferation of the inside of blood
CC vessels or any other hyperplasia
XX
SQ Sequence 15 BP; 2 A; 5 C; 3 G; 5 T; 0 U; 0 Other;

Query Match 17.4%; Score 13.4; DB 1; Length 15;
Best Local Similarity 93.3%; Pred. No. 53;
Matches 14; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 17 AAGTCGTTCGCTTCG 31
||||| |||||||||
Db 1 AAGTCCTTCGCTTCG 15

RESULT 79
AAA79810/c
ID AAA79810 standard; DNA; 17 BP.
XX
AC AAA79810;
XX
DT 20-NOV-2000 (first entry)
XX
DE Hepatitis B virus related oligonucleotide probe #73.
XX
KW Hepatitis B virus; HBV; Hepatitis A virus; HAV; probe; detection;
KW mutation; high-density gene chip; ss.
XX
OS Hepatitis B virus.
XX
PN CN1252452-A.
XX
PD 10-MAY-2000.
XX
PF 24-SEP-1999; 99CN-00114460.
XX
PR 24-SEP-1999; 99CN-00114460.
XX
PA (UYDO-) UNIV DONGNAN.
XX
PI Sun X, Lu Z, Wang Y;
XX
DR WPI; 2000-443233/39.
XX
PT High-density gene chip making process.
XX
PS Example 1; Fig 15; 19pp; Chinese.
XX
CC The present invention describes a method which comprises making a high-
CC density gene chip, specifically for making high-density micro-array of

```
CC   oligonucleotide probes. An oligonucleotide probe selecting process to
CC   seek preferentially length variable and coverage variable probes is
CC   provided to ensure identical cross melting temperature of probes to the
CC   maximum limit, and this can make the cross control of gene chip
CC   relatively simple and raise the reliability of the gene chip detecting
CC   results. The process proposes a specific probe selection method for
CC   detecting target sequence directly, detecting mutation in both specific
CC   and non-specific sites and a probe overall arrangement scheme. AAA79738
CC   to AAA80201 represent oligonucleotide probe sequences which are used in
CC   examples from the present invention
XX
SQ   Sequence 17 BP; 3 A; 5 C; 6 G; 3 T; 0 U; 0 Other;

  Query Match             17.4%;  Score 13.4;  DB 1;  Length 17;
  Best Local Similarity   93.3%;  Pred. No. 63;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         32 CTCACTCGGGACCGG 46
              |||||| ||||||||
Db         15 CTCACTTGGGACCGG 1


RESULT 80
AAH40833
ID   AAH40833 standard; DNA; 18 BP.
XX
AC   AAH40833;
XX
DT   14-AUG-2001  (first entry)
XX
DE   SNP specific upper PCR primer SEQ ID 3629.
XX
KW   Single nucleotide polymorphism; SNP; single nucleotide primer extension;
KW   SNPE; genotyping; agammaglobulinaemia; diabetes insipidus; cancer;
KW   Lesch-Nyhan syndrome; muscular dystrophy; familial hypercholesterolaemia;
KW   polycystic kidney disease; osteogenesis imperfecta; autoimmune disease;
KW   acute intermittent porphyria; rheumatoid arthritis; multiple sclerosis;
KW   inflammation; forensic investigation; paternity analysis; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200129262-A2.
XX
PD   26-APR-2001.
XX
PF   13-OCT-2000; 2000WO-US028436.
XX
PR   15-OCT-1999;   99US-0160096P.
XX
PA   (ORCH-) ORCHID BIOSCIENCES INC.
XX
PI   Picoult-Newburg L,  Pohl M;
XX
DR   WPI; 2001-290930/30.
XX
PT   New genotyping oligonucleotide, useful for detecting the presence,
PT   absence or identity of single polynucleotide polymorphism in a nucleic
PT   acid sample.
XX
PS   Claim 1; Page 68; 83pp; English.
XX
CC   Sequences AAH37205 - AAH40944 represent PCR primers, single nucleotide
CC   primer extension (SNPE) primers, and the sequences of regions flanking
CC   sites of single nucleotide polymorphisms SNPs. The present invention
CC   includes kits for determining the presence or absence of a SNP, using the
CC   oligonucleotides of the invention. The PCR primers are used to amplify a
CC   SNP flanking sequence, the SNPE primer is used as a genotyping primer.
CC   The oligonucleotides are useful for genotyping a nucleic acid sample by
CC   performing a single-nucleotide primer extension reaction. The
CC   oligonucleotides are useful for determining the presence, absence or
CC   identity of a SNP and for genotyping nucleic acid samples, for e.g. to
CC   assess by association analysis the genotype of an individual or group of
CC   individuals, having a pathological phenotypic trait suspected of being
CC   caused by one or more SNPs. Phenotypic traits include diseases e.g.
CC   agammaglobulinaemia, diabetes insipidus, Lesch-Nyhan syndrome, muscular
CC   dystrophy, familial hypercholesterolaemia, polycystic kidney disease,
CC   osteogenesis imperfecta and acute intermittent porphyria. Phenotypic
CC   traits also include symptoms of or susceptibility to multifactorial
CC   disease of which a component is or may be genetic such as autoimmune
CC   diseases, including, rheumatoid arthritis, multiple sclerosis,
CC   inflammation, cancer, nervous system diseases and infection by pathogenic
CC   microorganism. The method is also useful in forensic investigations and
CC   paternity analysis. The present sequence represents a PCR primer specific
CC   for a human SNP containing DNA sequence
XX
SQ   Sequence 18 BP; 5 A; 8 C; 4 G; 1 T; 0 U; 0 Other;

  Query Match             17.4%;  Score 13.4;  DB 1;  Length 18;
  Best Local Similarity   93.3%;  Pred. No. 69;
  Matches   14;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         30 CGCTCACTCGGGACC 44
              ||| ||||||||||
Db          1 CGCACACTCGGGACC 15


RESULT 81
ADE43414
ID   ADE43414 standard; DNA; 18 BP.
XX
AC   ADE43414;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Human SNCG sequencing primer, SEQ ID 19.
XX
KW   Neurodegenerative disease; uPA; SNCG; IDE; KNSL1; LIPA; TNFRSF6;
KW   Alzheimer's disease; neuroprotective; nootropic; gene therapy;
KW   Chromosome 10; PCR; primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO2003054143-A2.
XX
PD   03-JUL-2003.
XX
PF   25-OCT-2002; 2002WO-US034679.
XX
PR   25-OCT-2001; 2001US-0339525P.
PR   08-NOV-2001; 2001US-0336929P.
PR   08-NOV-2001; 2001US-0338010P.
PR   09-NOV-2001; 2001US-0338363P.
PR   04-DEC-2001; 2001US-0337052P.
PR   28-MAR-2002; 2002US-0368919P.
XX
PA   (NEUR-) NEUROGENETICS INC.
PA   (GEHO ) GEN HOSPITAL CORP.
XX
PI   Becker KD,  Velicelebi G,  Elliott KJ,  Wang X,  Tanzi RE,  Bertram L;
PI   Saunders AJ,  Mullin KM,  Sampson AJ,  Blacker DL;
XX
DR   WPI; 2003-559131/52.
XX
PT   Determining a predisposition for or the occurrence of neurodegenerative
PT   disease, e.g. Alzheimer's disease by detecting in a target nucleic acid
PT   the presence or absence of an allelic variant of one or more polymorphic
PT   regions.
XX
PS   Example 2; Page 265; 848pp; English.
XX
CC   The present invention relates to a method (M1) for determining a
CC   predisposition for or the occurrence of neurodegenerative disease in a
CC   subject. The method comprises detecting in a target nucleic acid obtained
CC   from the subject the presence or absence of an allelic variant of one or
CC   more polymorphic regions of one or more genes selected from uPA
CC   (Urokinase plasminogen activator), SNCG (gamma-synuclein), IDE (insulin-
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CC   degrading enzyme), KNSL1 (Kinesin-like protein 1), LIPA (lysosomal acid
CC   lypase), and TNFRSF6 (Tumour Necrosis Factor Receptor-SF6), where the
CC   presence of at least one of the allelic variant of one or more
CC   polymorphic regions is indicative of a predisposition for or the
CC   occurrence of neurodegenerative disease. The genes are all located on
CC   chromosome 10. M1 is useful for determining a predisposition for or the
CC   occurrence of, and for treating neurodegenerative disease, particularly
CC   Alzheimer's disease. The present sequence is a PCR primer, which was used
CC   in the method of the invention.
XX
SQ   Sequence 18 BP; 5 A; 5 C; 7 G; 1 T; 0 U; 0 Other;

  Query Match             17.1%;  Score 13.2;  DB 1;  Length 18;
  Best Local Similarity   83.3%;  Pred. No. 75;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         35 ACTCGGGACCGGCTAAAG 52
              || ||||| |||||| ||
Db          1 ACACGGGAGCGGCTACAG 18


RESULT 82
ADH53892
ID   ADH53892 standard; DNA; 18 BP.
XX
AC   ADH53892;
XX
DT   25-MAR-2004  (first entry)
XX
DE   Human neurodegenerative disease-related sequencing primer SeqID19.
XX
KW   human; neurodegenerative disease; urokinase plasminogen activator; uPA;
KW   gamma-synuclein; SNCG; insulin degrading enzyme; IDE;
KW   kinesin-like protein 1; KNSL1; lysosomal acid lipase; LIPA;
KW   tumour necrosis factor receptor SF6; TNFRSF6; Alzheimer's disease; PCR;
KW   primer; ss; sequencing.
XX
OS   Homo sapiens.
XX
PN   US2003224380-A1.
XX
PD   04-DEC-2003.
XX
PF   25-OCT-2002; 2002US-00282174.
XX
PR   25-OCT-2001; 2001US-0339525P.
PR   25-OCT-2001; 2001US-0348065P.
PR   02-NOV-2001; 2001US-0336983P.
PR   08-NOV-2001; 2001US-0336929P.
PR   08-NOV-2001; 2001US-0338010P.
PR   09-NOV-2001; 2001US-0338363P.
PR   04-DEC-2001; 2001US-0337052P.
PR   28-MAR-2002; 2002US-0368919P.
XX
PA   (GEHO ) GEN HOSPITAL CORP.
XX
PI   Becker KD,  Velicelebi G,  Ellliott KJ,  Wang X,  Tanzi RE;
PI   Bertram L,  Saunders AJ,  Mullin KM,  Sampson AJ;
XX
DR   WPI; 2004-060538/06.
XX
PT   Determining a predisposition for or the occurrence of neurodegenerative
PT   disease, particularly Alzheimer's disease, comprises determining the
PT   presence of a polymorphism in the uPA, SNCG, IDE, KNSL1, LIPA or TNFRSF6
PT   gene.
XX
PS   Example 2; SEQ ID NO 19; 205pp; English.
XX
CC   This invention relates to a novel method of determining a predisposition
CC   for or the occurrence of neurodegenerative disease comprising detecting
CC   in a target nucleic acid obtained from the subject the presence of an
CC   allelic variant of polymorphic regions of human genes selected from
CC   urokinase plasminogen activator (uPA), gamma-synuclein (SNCG), insulin
CC   degrading enzyme (IDE), kinesin-like protein 1 (KNSL1), lysosomal acid
CC   lipase (LIPA) and tumour necrosis factor receptor SF6 (TNFRSF6). The
CC   method is useful in determining the presence or predisposition to a
CC   neurodegenerative disease, particularly Alzheimer's disease. The present
CC   sequence is that of a sequencing primer which was used for sequencing of
CC   a region of the human SNCG gene in the exemplification of the invention.
XX
SQ   Sequence 18 BP; 5 A; 5 C; 7 G; 1 T; 0 U; 0 Other;

  Query Match             17.1%;  Score 13.2;  DB 1;  Length 18;
  Best Local Similarity   83.3%;  Pred. No. 75;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         35 ACTCGGGACCGGCTAAAG 52
              || ||||| |||||| ||
Db          1 ACACGGGAGCGGCTACAG 18


RESULT 83
AAZ44901/c
ID   AAZ44901 standard; DNA; 76 BP.
XX
AC   AAZ44901;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #8.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 59; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 76 BP; 15 A; 25 C; 20 G; 16 T; 0 U; 0 Other;
```

```
  Query Match            16.9%;  Score 13;  DB 1;  Length 76;
  Best Local Similarity   50.8%;  Pred. No. 1.6e+02;
  Matches   31;  Conservative    0;  Mismatches   30;  Indels    0;  Gaps    0;

Qy         17 AAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTTAACCAAACGTTAGG 76
              |||  |   |||||||     | |     || ||       | | | ||||  ||||||
Db         61 AAGGGGCCGGCTTCGCCGGTCCCGAGTGAGCGAAGCGAACGACTTGAGCCAATTGTTAGG 2

Qy         77 C 77
              |
Db          1 C 1


RESULT 84
AAV93448
ID   AAV93448 standard; RNA; 17 BP.
XX
AC   AAV93448;
XX
DT   18-FEB-1999  (first entry)
XX
DE   Human B-raf substrate nucleotide position 999.
XX
KW   Human; c-raf; A-raf; B-raf; hammerhead ribozyme; hairpin ribozyme;
KW   target; substrate; catalyst; modulation; expression; Raf gene; delivery;
KW   screening; identification; synthesis; deprotection; purification; cancer;
KW   inflammation; psoriasis; non-hepatic ascites; infection; genetic drift;
KW   restenosis; rheumatoid arthritis; ss.
XX
OS   Homo sapiens.
XX
PN   WO9850530-A2.
XX
PD   12-NOV-1998.
XX
PF   05-MAY-1998;   98WO-US009249.
XX
PR   09-MAY-1997;   97US-0046059P.
PR   09-JUN-1997;   97US-0049002P.
PR   03-JUL-1997;   97US-0051718P.
PR   22-AUG-1997;   97US-0056808P.
PR   02-OCT-1997;   97US-0061321P.
PR   02-OCT-1997;   97US-0061324P.
PR   05-NOV-1997;   97US-0064866P.
PR   19-DEC-1997;   97US-0068212P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Jarvis T,  Matulic-Adamic J,  Reynolds M,  Kisich K,  Bellon L;
PI   Parry T,  Beigelman L,  Mcswiggen JA,  Karpeisky A,  Burgin A;
PI   Thompson J,  Workman CT,  Beaudry A,  Sweedler D;
XX
DR   WPI; 1999-009494/01.
XX
PT   Identifying new catalytic nucleic acid that modulates selected processes
PT   - especially ribozymes that cleave Raf RNA for treating cancer,
PT   restenosis, and also new ribozymes and modified nucleoside triphosphates
PT   used as antiviral agents and synthons.
XX
PS   Claim 177; Page 168; 259pp; English.
XX
CC   A method has been developed for the identification of a nucleic acid
CC   capable of modulating a process in a biological system. The method
CC   comprises: (a) introducing into the system a random library of nucleic
CC   acid catalysts (NAC) having a substrate binding domain (SBD), comprising
CC   a random sequence, and a catalytic domain (CD); and (b) identifying NAC
CC   in systems where modulation has occurred and/or determining the sequence
CC   of at least part of the SBDs in such systems. Nucleic acid molecules with
CC   endonuclease activity and catalytic activity, from the present invention,
CC   are used to modulate gene expression in plant and mammalian cells and to
CC   cleave target nucleic acid, particularly for treating systemic diseases
CC   caused by specific RNA, e.g. cancer, inflammation, psoriasis, non-hepatic
CC   ascites and infection. They may also be used to detect genetic drift and
CC   mutations in diseased cells and to determine c-raf RNA. Specifically NACs
CC   with RNA-cleaving activity that modulate expression of the Raf gene, are
CC   used to treat cancer, restenosis, psoriasis or rheumatoid arthritis, or
CC   generally any condition associated with the level of c-raf. Introduction
CC   of sugar/phosphate modifications increases stability against nuclease and
CC   activity. AAV90922 to AAV93877 represent NACs that can be used in the
CC   method, specifically for modulating the expression of a Raf gene
XX
SQ   Sequence 17 BP; 5 A; 5 C; 2 G; 0 T; 5 U; 0 Other;

  Query Match            16.6%;  Score 12.8;  DB 1;  Length 17;
  Best Local Similarity   68.8%;  Pred. No. 82;
  Matches   11;  Conservative    3;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||:|||| |:|| :||
Db          1 CCUAACAUCUGGAUCA 16


RESULT 85
AAD38547/c
ID   AAD38547 standard; DNA; 18 BP.
XX
AC   AAD38547;
XX
DT   10-SEP-2002  (first entry)
XX
DE   Bovine leukocyte antigen class I exon 3 specific probe, BoLA-C1Ex3A18R.
XX
KW   Bovine; immunological rejection; nuclear transfer; NT; immune response;
KW   MHC-I; major histocompatibility complex; bovine leukocyte antigen;
KW   embryo transfer; BoLA class I exon 3 DNA; probe; ss.
XX
OS   Bos sp.
XX
PN   WO200229000-A2.
XX
PD   11-APR-2002.
XX
PF   03-OCT-2001; 2001WO-US030925.
XX
PR   03-OCT-2000; 2000US-0237673P.
XX
PA   (CORR ) CORNELL RES FOUND INC.
XX
PI   Davies CJ,  Schlafer DH,  Hill JR;
XX
DR   WPI; 2002-444101/47.
XX
PT   Minimizing immunological rejection of nuclear transfer fetuses, by
PT   transferring the nuclear transfer embryo into an embryo recipient for
PT   development of the fetus.
XX
PS   Example 1; Page 18; 103pp; English.
XX
CC   The present invention relates to a method of minimising immunological
CC   rejection of a nuclear transfer (NT) foetus by transferring a nuclear
CC   transfer embryo into an embryo recipient under conditions effective for
CC   the development of a nuclear transfer foetus with minimal risk of
CC   immunological rejection of the foetus due to maternal anti-foetal major
CC   histocompatibility complex (MHC)-I immune response. The method is useful
CC   for minimising immunological rejection of a NT foetus. It is also useful
CC   for performing embryo transfer. The present DNA sequence is a probe
CC   specific for bovine leukocyte antigen (BoLA) class I exon 3 DNA. This
CC   probe is used in the exemplification of the invention
XX
SQ   Sequence 18 BP; 4 A; 6 C; 5 G; 3 T; 0 U; 0 Other;

  Query Match            16.6%;  Score 12.8;  DB 1;  Length 18;
  Best Local Similarity   87.5%;  Pred. No. 89;
  Matches   14;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         12 GGTTCAAGTCGTTCGC 27
```

```
                ||||||||  ||||||
Db         17 GGTTCAAGCAGTTCGC 2
```

RESULT 86
AAF52745
ID AAF52745 standard; DNA; 15 BP.
XX
AC AAF52745;
XX
DT 30-MAR-2001 (first entry)
XX
DE IGF-I oligonucleotide #3705.
XX
KW Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
KW cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
KW skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
KW IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
KW growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
KW keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
KW hyperneovascular condition; hyperplasia; kidney disease;
KW neovascular condition of the retina; ss.
XX
OS Homo sapiens.
XX
PN WO200078341-A1.
XX
PD 28-DEC-2000.
XX
PF 21-JUN-2000; 2000WO-AU000693.
XX
PR 21-JUN-1999; 99US-0140345P.
XX
PA (MURD-) MURDOCH CHILDRENS RES INST.
XX
PI Wraight CJ, Werther GA, Edmondson SR;
XX
DR WPI; 2001-041421/05.
XX
PT Ameliorating the effects of a disorder, e.g. psoriasis, by administering
PT UV (ultra-violet) treatment (optional) and an antisense nucleic acid that
PT inhibits or reduces growth factor mediated cell proliferation and/or
PT inflammation.
XX
PS Example 8; Page 85; 201pp; English.
XX
CC The present invention relates to a method for ameliorating the effects of
CC skin disorders. The method comprises contacting the skin with an
CC antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
CC receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
CC inhibiting or reducing growth factor mediated cell proliferation,
CC inflammation and/or other disorders. The present sequence is an
CC oligonucleotide which can be used to design the antisense
CC oligonucleotides of the present invention (see AAF45151 and AAF45153-
CC F45161). The method is useful for ameliorating the effects of psoriasis,
CC ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis,
CC neoplasias, scleroderma, warts, benign growths, cancers of the skin, a
CC hyperneovascular condition such as a neovascular condition of the retina,
CC brain or skin, growth factor-mediated malignancies, other sclerotic
CC disease, kidney disease, hyperproliferation of the inside of blood
CC vessels or any other hyperplasia
XX
SQ Sequence 15 BP; 1 A; 5 C; 3 G; 6 T; 0 U; 0 Other;

```
  Query Match             16.1%;  Score 12.4;  DB 1;  Length 15;
  Best Local Similarity   92.9%;  Pred. No. 82;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         18 AGTCGTTCGCTTCG 31
              |||| |||||||||
Db          1 AGTCCTTCGCTTCG 14
```

RESULT 87
AAF51767
ID AAF51767 standard; DNA; 15 BP.
XX
AC AAF51767;
XX
DT 30-MAR-2001 (first entry)
XX
DE IGF-I oligonucleotide #2727.
XX
KW Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
KW cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
KW skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
KW IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
KW growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
KW keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
KW hyperneovascular condition; hyperplasia; kidney disease;
KW neovascular condition of the retina; ss.
XX
OS Homo sapiens.
XX
PN WO200078341-A1.
XX
PD 28-DEC-2000.
XX
PF 21-JUN-2000; 2000WO-AU000693.
XX
PR 21-JUN-1999; 99US-0140345P.
XX
PA (MURD-) MURDOCH CHILDRENS RES INST.
XX
PI Wraight CJ, Werther GA, Edmondson SR;
XX
DR WPI; 2001-041421/05.
XX
PT Ameliorating the effects of a disorder, e.g. psoriasis, by administering
PT UV (ultra-violet) treatment (optional) and an antisense nucleic acid that
PT inhibits or reduces growth factor mediated cell proliferation and/or
PT inflammation.
XX
PS Example 8; Page 78; 201pp; English.
XX
CC The present invention relates to a method for ameliorating the effects of
CC skin disorders. The method comprises contacting the skin with an
CC antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
CC receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
CC inhibiting or reducing growth factor mediated cell proliferation,
CC inflammation and/or other disorders. The present sequence is an
CC oligonucleotide which can be used to design the antisense
CC oligonucleotides of the present invention (see AAF45151 and AAF45153-
CC F45161). The method is useful for ameliorating the effects of psoriasis,
CC ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis,
CC neoplasias, scleroderma, warts, benign growths, cancers of the skin, a
CC hyperneovascular condition such as a neovascular condition of the retina,
CC brain or skin, growth factor-mediated malignancies, other sclerotic
CC disease, kidney disease, hyperproliferation of the inside of blood
CC vessels or any other hyperplasia
XX
SQ Sequence 15 BP; 3 A; 6 C; 5 G; 1 T; 0 U; 0 Other;

```
  Query Match             16.1%;  Score 12.4;  DB 1;  Length 15;
  Best Local Similarity   92.9%;  Pred. No. 82;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         43 CCGGCTAAAGCCGG 56
              ||||||||| ||||
Db          1 CCGGCTAAACCCGG 14
```

RESULT 88
AAF51765
ID AAF51765 standard; DNA; 15 BP.
XX

```
AC   AAF51765;
XX
DT   30-MAR-2001  (first entry)
XX
DE   IGF-I oligonucleotide #2725.
XX
KW   Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
KW   cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
KW   skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
KW   IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
KW   growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
KW   keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
KW   hyperneovascular condition; hyperplasia; kidney disease;
KW   neovascular condition of the retina; ss.
XX
OS   Homo sapiens.
XX
PN   WO200078341-A1.
XX
PD   28-DEC-2000.
XX
PF   21-JUN-2000; 2000WO-AU000693.
XX
PR   21-JUN-1999;   99US-0140345P.
XX
PA   (MURD-) MURDOCH CHILDRENS RES INST.
XX
PI   Wraight CJ,  Werther GA,  Edmondson SR;
XX
DR   WPI; 2001-041421/05.
XX
PT   Ameliorating the effects of a disorder, e.g. psoriasis, by administering
PT   UV (ultra-violet) treatment (optional) and an antisense nucleic acid that
PT   inhibits or reduces growth factor mediated cell proliferation and/or
PT   inflammation.
XX
PS   Example 8; Page 78; 201pp; English.
XX
CC   The present invention relates to a method for ameliorating the effects of
CC   skin disorders. The method comprises contacting the skin with an
CC   antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
CC   receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
CC   inhibiting or reducing growth factor mediated cell proliferation,
CC   inflammation and/or other disorders. The present sequence is an
CC   oligonucleotide which can be used to design the antisense
CC   oligonucleotides of the present invention (see AAF45151 and AAF45153-
CC   F45161). The method is useful for ameliorating the effects of psoriasis,
CC   ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis,
CC   neoplasias, scleroderma, warts, benign growths, cancers of the skin, a
CC   hyperneovascular condition such as a neovascular condition of the retina,
CC   brain or skin, growth factor-mediated malignancies, other sclerotic
CC   disease, kidney disease, hyperproliferation of the inside of blood
CC   vessels or any other hyperplasia
XX
SQ   Sequence 15 BP; 5 A; 6 C; 3 G; 1 T; 0 U; 0 Other;

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 15;
  Best Local Similarity   92.9%;  Pred. No. 82;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         42 ACCGGCTAAAGCCG 55
              |||||||||| |||
Db          2 ACCGGCTAAACCCG 15


RESULT 89
AAF52742
ID   AAF52742 standard; DNA; 15 BP.
XX
AC   AAF52742;
XX
DT   30-MAR-2001  (first entry)
XX
DE   IGF-I oligonucleotide #3702.
XX
KW   Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
KW   cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
KW   skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
KW   IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
KW   growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
KW   keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
KW   hyperneovascular condition; hyperplasia; kidney disease;
KW   neovascular condition of the retina; ss.
XX
OS   Homo sapiens.
XX
PN   WO200078341-A1.
XX
PD   28-DEC-2000.
XX
PF   21-JUN-2000; 2000WO-AU000693.
XX
PR   21-JUN-1999;   99US-0140345P.
XX
PA   (MURD-) MURDOCH CHILDRENS RES INST.
XX
PI   Wraight CJ,  Werther GA,  Edmondson SR;
XX
DR   WPI; 2001-041421/05.
XX
PT   Ameliorating the effects of a disorder, e.g. psoriasis, by administering
PT   UV (ultra-violet) treatment (optional) and an antisense nucleic acid that
PT   inhibits or reduces growth factor mediated cell proliferation and/or
PT   inflammation.
XX
PS   Example 8; Page 85; 201pp; English.
XX
CC   The present invention relates to a method for ameliorating the effects of
CC   skin disorders. The method comprises contacting the skin with an
CC   antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
CC   receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
CC   inhibiting or reducing growth factor mediated cell proliferation,
CC   inflammation and/or other disorders. The present sequence is an
CC   oligonucleotide which can be used to design the antisense
CC   oligonucleotides of the present invention (see AAF45151 and AAF45153-
CC   F45161). The method is useful for ameliorating the effects of psoriasis,
CC   ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis,
CC   neoplasias, scleroderma, warts, benign growths, cancers of the skin, a
CC   hyperneovascular condition such as a neovascular condition of the retina,
CC   brain or skin, growth factor-mediated malignancies, other sclerotic
CC   disease, kidney disease, hyperproliferation of the inside of blood
CC   vessels or any other hyperplasia
XX
SQ   Sequence 15 BP; 2 A; 5 C; 3 G; 5 T; 0 U; 0 Other;

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 15;
  Best Local Similarity   92.9%;  Pred. No. 82;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         16 CAAGTCGTTCGCTT 29
              |||||| |||||||
Db          2 CAAGTCCTTCGCTT 15


RESULT 90
AAA79809/c
ID   AAA79809 standard; DNA; 17 BP.
XX
AC   AAA79809;
XX
DT   20-NOV-2000  (first entry)
XX
DE   Hepatitis B virus related oligonucleotide probe #72.
XX
KW   Hepatitis B virus; HBV; Hepatitis A virus; HAV; probe; detection;
KW   mutation; high-density gene chip; ss.
```

```
XX
OS   Hepatitis B virus.
XX
PN   CN1252452-A.
XX
PD   10-MAY-2000.
XX
PF   24-SEP-1999;   99CN-00114460.
XX
PR   24-SEP-1999;   99CN-00114460.
XX
PA   (UYDO-) UNIV DONGNAN.
XX
PI   Sun X,  Lu Z,  Wang Y;
XX
DR   WPI; 2000-443233/39.
XX
PT   High-density gene chip making process.
XX
PS   Example 1; Fig 15; 19pp; Chinese.
XX
CC   The present invention describes a method which comprises making a high-
CC   density gene chip, specifically for making high-density micro-array of
CC   oligonucleotide probes. An oligonucleotide probe selecting process to
CC   seek preferentially length variable and coverage variable probes is
CC   provided to ensure identical cross melting temperature of probes to the
CC   maximum limit, and this can make the cross control of gene chip
CC   relatively simple and raise the reliability of the gene chip detecting
CC   results. The process proposes a specific probe selection method for
CC   detecting target sequence directly, detecting mutation in both specific
CC   and non-specific sites and a probe overall arrangement scheme. AAA79738
CC   to AAA80201 represent oligonucleotide probe sequences which are used in
CC   examples from the present invention
XX
SQ   Sequence 17 BP; 4 A; 6 C; 5 G; 2 T; 0 U; 0 Other;

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 17;
  Best Local Similarity   92.9%;  Pred. No. 97;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         33 TCACTCGGGACCGG 46
              ||||| ||||||||
Db         17 TCACTTGGGACCGG 4


RESULT 91
AAA79811/c
ID   AAA79811 standard; DNA; 17 BP.
XX
AC   AAA79811;
XX
DT   20-NOV-2000  (first entry)
XX
DE   Hepatitis B virus related oligonucleotide probe #74.
XX
KW   Hepatitis B virus; HBV; Hepatitis A virus; HAV; probe; detection;
KW   mutation; high-density gene chip; ss.
XX
OS   Hepatitis B virus.
XX
PN   CN1252452-A.
XX
PD   10-MAY-2000.
XX
PF   24-SEP-1999;   99CN-00114460.
XX
PR   24-SEP-1999;   99CN-00114460.
XX
PA   (UYDO-) UNIV DONGNAN.
XX
PI   Sun X,  Lu Z,  Wang Y;
XX
DR   WPI; 2000-443233/39.
XX
PT   High-density gene chip making process.
XX
PS   Example 1; Fig 15; 19pp; Chinese.
XX
CC   The present invention describes a method which comprises making a high-
CC   density gene chip, specifically for making high-density micro-array of
CC   oligonucleotide probes. An oligonucleotide probe selecting process to
CC   seek preferentially length variable and coverage variable probes is
CC   provided to ensure identical cross melting temperature of probes to the
CC   maximum limit, and this can make the cross control of gene chip
CC   relatively simple and raise the reliability of the gene chip detecting
CC   results. The process proposes a specific probe selection method for
CC   detecting target sequence directly, detecting mutation in both specific
CC   and non-specific sites and a probe overall arrangement scheme. AAA79738
CC   to AAA80201 represent oligonucleotide probe sequences which are used in
CC   examples from the present invention
XX
SQ   Sequence 17 BP; 3 A; 4 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 17;
  Best Local Similarity   92.9%;  Pred. No. 97;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         32 CTCACTCGGGACCG 45
              |||||| |||||||
Db         14 CTCACTTGGGACCG 1


RESULT 92
ACD60629/c
ID   ACD60629 standard; RNA; 17 BP.
XX
AC   ACD60629;
XX
DT   24-SEP-2003  (first entry)
XX
DE   HCV DNAzyme substrate sequence #1927.
XX
KW   Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV;
KW   RNA stability; RNA expression; RNA synthesis; antisense;
KW   enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme;
KW   amberzyme; G-cleaver ribozyme; decoy molecule; aptamer;
KW   HBV reverse transcriptase; Enhancer I region; viral replication;
KW   degenerative; disease state; HBV infection; HCV infection; cirrhosis;
KW   liver failure; hepatocellular carcinoma; hepatotropic; cytostatic;
KW   virucide; antiinflammatory; substrate; ss.
XX
OS   Hepatitis C virus.
XX
PN   WO200281494-A1.
XX
PD   17-OCT-2002.
XX
PF   26-MAR-2002; 2002WO-US009187.
XX
PR   26-MAR-2001; 2001US-00817879.
PR   08-JUN-2001; 2001US-00877478.
PR   08-JUN-2001; 2001US-0296876P.
PR   24-OCT-2001; 2001US-0335059P.
PR   05-DEC-2001; 2001US-0337055P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MACE/) MACEJAK D.
PA   (MCSW/) MCSWIGGEN J.
PA   (MORR/) MORRISSEY D.
PA   (PAVC/) PAVCO P.
PA   (LEEP/) LEE P.
PA   (DRAP/) DRAPER K.
PA   (ROBE/) ROBERTS E.
XX
PI   Blatt L,  Macejak D,  Mcswiggen J,  Morrissey D,  Pavco P,  Lee P;
```

```
PI   Draper K,  Roberts E;
XX
DR   WPI; 2003-229207/22.
XX
PT   Novel compound useful for treating cirrhosis, liver failure,
PT   hepatocellular carcinoma, or condition associated with hepatitis C virus
PT   infection.
XX
PS   Claim 1; Page 268; 387pp; English.
XX
CC   The present invention relates to nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of Hepatitis C virus (HCV) or
CC   Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense
CC   and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes,
CC   inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed
CC   are nucleic acid decoy molecules and aptamers that bind to HBV reverse
CC   transcriptase and/or HBV reverse transcriptase primer sequences, as well
CC   as oligonucleotides that specifically bind the Enhancer I region of HBV
CC   DNA. The nucleic acids may be used to modulate the expression of HBV
CC   genes and HBV viral replication. Also disclosed is a method for screening
CC   compounds and/or potential therapies directed against HBV, and compounds
CC   that modulate the expression and/or replication of HCV. The compounds and
CC   methods of the invention are useful for the treatment of degenerative and
CC   disease states related to HBV and HCV infection, replication and gene
CC   expression such as cirrhosis, liver failure, and hepatocellular
CC   carcinoma. The present sequence represents a substrate for one of the HCV
CC   DNAzyme or minus strand DNAzyme sequences disclosed in the present
CC   invention
XX
SQ   Sequence 17 BP; 4 A; 1 C; 6 G; 0 T; 6 U; 0 Other;

  Query Match            16.1%;  Score 12.4;  DB 1;  Length 17;
  Best Local Similarity  92.9%;  Pred. No. 97;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
              ||||| ||||||||
Db         15 GCCCCATAACCAAA 2


RESULT 93
ACD62041
ID   ACD62041 standard; RNA; 17 BP.
XX
AC   ACD62041;
XX
DT   23-SEP-2003  (first entry)
XX
DE   HCV minus strand DNAzyme substrate sequence #352.
XX
KW   Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV;
KW   RNA stability; RNA expression; RNA synthesis; antisense;
KW   enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme;
KW   amberzyme; G-cleaver ribozyme; decoy molecule; aptamer;
KW   HBV reverse transcriptase; Enhancer I region; viral replication;
KW   degenerative; disease state; HBV infection; HCV infection; cirrhosis;
KW   liver failure; hepatocellular carcinoma; hepatotropic; cytostatic;
KW   virucide; antiinflammatory; substrate; ss.
XX
OS   Hepatitis C virus.
XX
PN   WO200281494-A1.
XX
PD   17-OCT-2002.
XX
PF   26-MAR-2002; 2002WO-US009187.
XX
PR   26-MAR-2001; 2001US-00817879.
PR   08-JUN-2001; 2001US-00877478.
PR   08-JUN-2001; 2001US-0296876P.
PR   24-OCT-2001; 2001US-0335059P.
PR   05-DEC-2001; 2001US-0337055P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MACE/) MACEJAK D.
PA   (MCSW/) MCSWIGGEN J.
PA   (MORR/) MORRISSEY D.
PA   (PAVC/) PAVCO P.
PA   (LEEP/) LEE P.
PA   (DRAP/) DRAPER K.
PA   (ROBE/) ROBERTS E.
XX
PI   Blatt L,  Macejak D,  Mcswiggen J,  Morrissey D,  Pavco P,  Lee P;
PI   Draper K,  Roberts E;
XX
DR   WPI; 2003-229207/22.
XX
PT   Novel compound useful for treating cirrhosis, liver failure,
PT   hepatocellular carcinoma, or condition associated with hepatitis C virus
PT   infection.
XX
PS   Claim 1; Page 281; 387pp; English.
XX
CC   The present invention relates to nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of Hepatitis C virus (HCV) or
CC   Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense
CC   and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes,
CC   inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed
CC   are nucleic acid decoy molecules and aptamers that bind to HBV reverse
CC   transcriptase and/or HBV reverse transcriptase primer sequences, as well
CC   as oligonucleotides that specifically bind the Enhancer I region of HBV
CC   DNA. The nucleic acids may be used to modulate the expression of HBV
CC   genes and HBV viral replication. Also disclosed is a method for screening
CC   compounds and/or potential therapies directed against HBV, and compounds
CC   that modulate the expression and/or replication of HCV. The compounds and
CC   methods of the invention are useful for the treatment of degenerative and
CC   disease states related to HBV and HCV infection, replication and gene
CC   expression such as cirrhosis, liver failure, and hepatocellular
CC   carcinoma. The present sequence represents a substrate for one of the HCV
CC   DNAzyme or minus strand DNAzyme sequences disclosed in the present
CC   invention
XX
SQ   Sequence 17 BP; 6 A; 6 C; 1 G; 0 T; 4 U; 0 Other;

  Query Match            16.1%;  Score 12.4;  DB 1;  Length 17;
  Best Local Similarity  85.7%;  Pred. No. 97;
  Matches   12;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
              ||||| :|||||||
Db          1 GCCCCAUAACCAAA 14


RESULT 94
ACD62040
ID   ACD62040 standard; RNA; 17 BP.
XX
AC   ACD62040;
XX
DT   23-SEP-2003  (first entry)
XX
DE   HCV minus strand DNAzyme substrate sequence #351.
XX
KW   Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV;
KW   RNA stability; RNA expression; RNA synthesis; antisense;
KW   enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme;
KW   amberzyme; G-cleaver ribozyme; decoy molecule; aptamer;
KW   HBV reverse transcriptase; Enhancer I region; viral replication;
KW   degenerative; disease state; HBV infection; HCV infection; cirrhosis;
KW   liver failure; hepatocellular carcinoma; hepatotropic; cytostatic;
KW   virucide; antiinflammatory; substrate; ss.
XX
OS   Hepatitis C virus.
XX
PN   WO200281494-A1.
```

```
XX
PD   17-OCT-2002.
XX
PF   26-MAR-2002; 2002WO-US009187.
XX
PR   26-MAR-2001; 2001US-00817879.
PR   08-JUN-2001; 2001US-00877478.
PR   08-JUN-2001; 2001US-0296876P.
PR   24-OCT-2001; 2001US-0335059P.
PR   05-DEC-2001; 2001US-0337055P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MACE/) MACEJAK D.
PA   (MCSW/) MCSWIGGEN J.
PA   (MORR/) MORRISSEY D.
PA   (PAVC/) PAVCO P.
PA   (LEEP/) LEE P.
PA   (DRAP/) DRAPER K.
PA   (ROBE/) ROBERTS E.
XX
PI   Blatt L,  Macejak D,  Mcswiggen J,  Morrissey D,  Pavco P,  Lee P;
PI   Draper K,  Roberts E;
XX
DR   WPI; 2003-229207/22.
XX
PT   Novel compound useful for treating cirrhosis, liver failure,
PT   hepatocellular carcinoma, or condition associated with hepatitis C virus
PT   infection.
XX
PS   Claim 1; Page 281; 387pp; English.
XX
CC   The present invention relates to nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of Hepatitis C virus (HCV) or
CC   Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense
CC   and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes,
CC   inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed
CC   are nucleic acid decoy molecules and aptamers that bind to HBV reverse
CC   transcriptase and/or HBV reverse transcriptase primer sequences, as well
CC   as oligonucleotides that specifically bind the Enhancer I region of HBV
CC   DNA. The nucleic acids may be used to modulate the expression of HBV
CC   genes and HBV viral replication. Also disclosed is a method for screening
CC   compounds and/or potential therapies directed against HBV, and compounds
CC   that modulate the expression and/or replication of HCV. The compounds and
CC   methods of the invention are useful for the treatment of degenerative and
CC   disease states related to HBV and HCV infection, replication and gene
CC   expression such as cirrhosis, liver failure, and hepatocellular
CC   carcinoma. The present sequence represents a substrate for one of the HCV
CC   DNAzyme or minus strand DNAzyme sequences disclosed in the present
CC   invention
XX
SQ   Sequence 17 BP; 6 A; 6 C; 1 G; 0 T; 4 U; 0 Other;

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 17;
  Best Local Similarity   85.7%;  Pred. No. 97;
  Matches   12;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
              ||||| :|||||||
Db          4 GCCCCAUAACCAAA 17


RESULT 95
ADI85383
ID   ADI85383 standard; RNA; 17 BP.
XX
AC   ADI85383;
XX
DT   03-JUN-2004  (first entry)
XX
DE   HCV DNAzyme substrate sequence #2629.
XX
KW   ss; enzymatic nucleic acid; RNA cleavage; hepatitis C virus; HCV;
KW   HCV infection; type I interferon; DNAzyme.
XX
OS   Hepatitis C virus.
XX
PN   US2003125270-A1.
XX
PD   03-JUL-2003.
XX
PF   18-DEC-2000; 2000US-00740332.
XX
PR   18-DEC-2000; 2000US-00740332.
XX
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J.
PA   (ROBE/) ROBERTS E.
PA   (PAVC/) PAVCO P A.
PA   (MACE/) MACEJACK D.
XX
PI   Blatt L,  Mcswiggen J,  Roberts E,  Pavco PA,  Macejack D;
XX
DR   WPI; 2004-031273/03.
XX
PT   Enzymatic nucleic acid molecules which specifically cleave RNA derived
PT   from hepatitis C virus (HCV), useful for the treatment of HCV infections,
PT   especially in combination with type I interferon therapy.
XX
PS   Claim 1; SEQ ID NO 2629; 198pp; English.
XX
CC   The invention relates to an enzymatic nucleic acid molecule which
CC   specifically cleaves RNA derived from hepatitis C virus (HCV), in which
CC   the binding arms of the enzymatic nucleic acid molecule comprises
CC   sequences complementary to any of the defined substrate sequences given
CC   in the specification. The nucleic acid molecule may be administered for
CC   the treatment of HCV infections, especially in combination with type I
CC   interferons. The present sequence represents a HCV DNAzyme substrate
CC   sequence.
XX
SQ   Sequence 17 BP; 6 A; 6 C; 1 G; 0 T; 4 U; 0 Other;

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 17;
  Best Local Similarity   85.7%;  Pred. No. 97;
  Matches   12;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
              ||||| :|||||||
Db          1 GCCCCAUAACCAAA 14


RESULT 96
ADI85382
ID   ADI85382 standard; RNA; 17 BP.
XX
AC   ADI85382;
XX
DT   03-JUN-2004  (first entry)
XX
DE   HCV DNAzyme substrate sequence #2628.
XX
KW   ss; enzymatic nucleic acid; RNA cleavage; hepatitis C virus; HCV;
KW   HCV infection; type I interferon; DNAzyme.
XX
OS   Hepatitis C virus.
XX
PN   US2003125270-A1.
XX
PD   03-JUL-2003.
XX
PF   18-DEC-2000; 2000US-00740332.
XX
PR   18-DEC-2000; 2000US-00740332.
XX
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J.
```

```
PA   (ROBE/) ROBERTS E.
PA   (PAVC/) PAVCO P A.
PA   (MACE/) MACEJACK D.
XX
PI   Blatt L,  Mcswiggen J,  Roberts E,  Pavco PA,  Macejack D;
XX
DR   WPI; 2004-031273/03.
XX
PT   Enzymatic nucleic acid molecules which specifically cleave RNA derived
PT   from hepatitis C virus (HCV), useful for the treatment of HCV infections,
PT   especially in combination with type I interferon therapy.
XX
PS   Claim 1; SEQ ID NO 2628; 198pp; English.
XX
CC   The invention relates to an enzymatic nucleic acid molecule which
CC   specifically cleaves RNA derived from hepatitis C virus (HCV), in which
CC   the binding arms of the enzymatic nucleic acid molecule comprises
CC   sequences complementary to any of the defined substrate sequences given
CC   in the specification. The nucleic acid molecule may be administered for
CC   the treatment of HCV infections, especially in combination with type I
CC   interferons. The present sequence represents a HCV DNAzyme substrate
CC   sequence.
XX
SQ   Sequence 17 BP; 6 A; 6 C; 1 G; 0 T; 4 U; 0 Other;

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 17;
  Best Local Similarity   85.7%;  Pred. No. 97;
  Matches   12;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
              ||||| :|||||||
Db          4 GCCCCAUAACCAAA 17


RESULT 97
ADI84681/c
ID   ADI84681 standard; RNA; 17 BP.
XX
AC   ADI84681;
XX
DT   03-JUN-2004  (first entry)
XX
DE   HCV DNAzyme substrate sequence #1927.
XX
KW   ss; enzymatic nucleic acid; RNA cleavage; hepatitis C virus; HCV;
KW   HCV infection; type I interferon; DNAzyme.
XX
OS   Hepatitis C virus.
XX
PN   US2003125270-A1.
XX
PD   03-JUL-2003.
XX
PF   18-DEC-2000; 2000US-00740332.
XX
PR   18-DEC-2000; 2000US-00740332.
XX
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J.
PA   (ROBE/) ROBERTS E.
PA   (PAVC/) PAVCO P A.
PA   (MACE/) MACEJACK D.
XX
PI   Blatt L,  Mcswiggen J,  Roberts E,  Pavco PA,  Macejack D;
XX
DR   WPI; 2004-031273/03.
XX
PT   Enzymatic nucleic acid molecules which specifically cleave RNA derived
PT   from hepatitis C virus (HCV), useful for the treatment of HCV infections,
PT   especially in combination with type I interferon therapy.
XX
PS   Claim 1; SEQ ID NO 1927; 198pp; English.
XX
CC   The invention relates to an enzymatic nucleic acid molecule which
CC   specifically cleaves RNA derived from hepatitis C virus (HCV), in which
CC   the binding arms of the enzymatic nucleic acid molecule comprises
CC   sequences complementary to any of the defined substrate sequences given
CC   in the specification. The nucleic acid molecule may be administered for
CC   the treatment of HCV infections, especially in combination with type I
CC   interferons. The present sequence represents a HCV DNAzyme substrate
CC   sequence.
XX
SQ   Sequence 17 BP; 4 A; 1 C; 6 G; 0 T; 6 U; 0 Other;

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 17;
  Best Local Similarity   92.9%;  Pred. No. 97;
  Matches   13;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
              ||||| |||||||
Db         15 GCCCCATAACCAAA 2


RESULT 98
AAZ88521/c
ID   AAZ88521 standard; DNA; 73 BP.
XX
AC   AAZ88521;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA PARf18.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC   alcaligenes repeat (PAR) elements described in the method of the
CC   invention
XX
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```
SQ   Sequence 73 BP; 17 A; 24 C; 16 G; 16 T; 0 U; 0 Other;

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 73;
  Best Local Similarity   72.7%;  Pred. No. 1.7e+02;
  Matches   16;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| |||  |  |||||| |||
Db         58 GGGGCCGAATTTAGCCGGTCCC 37


RESULT 99
AAZ88509/c
ID   AAZ88509 standard; DNA; 74 BP.
XX
AC   AAZ88509;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA PARf6.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC   alcaligenes repeat (PAR) elements described in the method of the
CC   invention
XX
SQ   Sequence 74 BP; 13 A; 26 C; 17 G; 18 T; 0 U; 0 Other;

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 74;
  Best Local Similarity   72.7%;  Pred. No. 1.7e+02;
  Matches   16;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| |||||  ||  ||| |||
Db         58 GGGGCCGGCGGAACGCGGTCCC 37


RESULT 100
AAZ88507/c
ID   AAZ88507 standard; DNA; 74 BP.
XX
AC   AAZ88507;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA PARf4.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Example 1B; Fig 3E; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ88504-Z88521 represent Pseudomonas
CC   alcaligenes repeat (PAR) elements described in the method of the
CC   invention
XX
SQ   Sequence 74 BP; 14 A; 28 C; 17 G; 15 T; 0 U; 0 Other;

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 74;
  Best Local Similarity   72.7%;  Pred. No. 1.7e+02;
  Matches   16;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| |||||  ||  ||| |||
Db         58 GGGGCCGGCGGAACGCGGTCCC 37


RESULT 101
AAZ44903/c
ID   AAZ44903 standard; DNA; 76 BP.
XX
AC   AAZ44903;
XX
DT   16-MAY-2000  (first entry)
```

```
XX
DE   P. alcaligenes repeat (PAR) element DNA #10.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 59; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 76 BP; 18 A; 25 C; 18 G; 15 T; 0 U; 0 Other;

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 76;
  Best Local Similarity   72.7%;  Pred. No. 1.7e+02;
  Matches   16;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| | ||||  |||| | |||
Db         59 GGGGCGGGCTTTAGCCCGTCCC 38


RESULT 102
AAZ44962/c
ID   AAZ44962 standard; DNA; 76 BP.
XX
AC   AAZ44962;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #69.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 76 BP; 17 A; 24 C; 16 G; 19 T; 0 U; 0 Other;

  Query Match             16.1%;  Score 12.4;  DB 1;  Length 76;
  Best Local Similarity   72.7%;  Pred. No. 1.7e+02;
  Matches   16;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCGGCCCC 60
              ||| |||  |  |||||| |||
Db         60 GGGGCCGAATTTAGCCGGTCCC 39


RESULT 103
ACN13607/c
ID   ACN13607 standard; RNA; 17 BP.
XX
AC   ACN13607;
XX
DT   22-APR-2004  (first entry)
XX
DE   WNV minus strand Zinzyme substrate SEQ ID NO 13610.
XX
KW   WNV; West Nile Virus; antiinflammatory; cytostatic; hepatotropic;
KW   virucide; neuroprotective; antibacterial; replication; pancreatitis;
KW   encephalitis; myocarditis; meningitis; infection; hepatitis;
KW   liver failure; cancer; cirrhosis; Hammerhead; Inozyme; DNAzyme;
KW   Amberzyme; Zinzyme; ss.
XX
OS   West Nile Virus.
XX
PN   WO200268637-A2.
XX
PD   06-SEP-2002.
XX
PF   19-OCT-2001; 2001WO-US048350.
XX
PR   20-OCT-2000; 2000US-0242411P.
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```
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J A.
XX
PI   Blatt L,  Mcswiggen JA;
XX
DR   WPI; 2002-706994/76.
XX
PT   New nucleic acid molecule that modulates replication of West Nile Virus
PT   (WNV), useful for treating a condition related to WNV infection e.g.
PT   pancreatitis, meningitis, hepatocellular carcinoma or cirrhosis.
XX
PS   Claim 23; SEQ ID NO 13610; 495pp; English.
XX
CC   The invention relates to nucleic acid molecules that modulate replication
CC   of the West Nile Virus (WNV). The nucleic acid molecules are useful for
CC   treating a condition related to WNV infection e.g. pancreatitis,
CC   encephalitis, myocarditis, meningitis, neurologic infection, hepatitis,
CC   liver failure, hepatocellular carcinoma or cirrhosis. The nucleic acid
CC   molecule is selected from the group of ribozymes consisting of
CC   Hammerhead, Inozyme, G-cleaver, DNAzyme, Amberzyme and Zinzyme. The
CC   nucleic acid molecules further comprise at least five ribose residues, at
CC   least ten 2'-O-methyl modifications, phosphorothioate linkages on at
CC   least three of the 5' terminal nucleotides and a 3' end modification of a
CC   3'-3' inverted abasic moiety. Nucleic acid molecules SEQ ID NO 1 to 37080
CC   are claimed; however, SEQ ID NO 2194-2206 and 17502-17514 are not given
CC   in the specification. The present sequence is that of a nucleic acid
CC   molecule of the invention
XX
SQ   Sequence 17 BP; 0 A; 8 C; 6 G; 0 T; 3 U; 0 Other;

  Query Match             15.8%;  Score 12.2;  DB 1;  Length 17;
  Best Local Similarity   82.4%;  Pred. No. 1.1e+02;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         39 GGGACCGGCTAAAGCCG 55
              ||| ||||| | |||||
Db         17 GGGCCCGGCAAGAGCCG 1


RESULT 104
ACN01433
ID   ACN01433 standard; RNA; 17 BP.
XX
AC   ACN01433;
XX
DT   22-APR-2004  (first entry)
XX
DE   WNV Inozyme substrate SEQ ID NO 1423.
XX
KW   WNV; West Nile Virus; antiinflammatory; cytostatic; hepatotropic;
KW   virucide; neuroprotective; antibacterial; replication; pancreatitis;
KW   encephalitis; myocarditis; meningitis; infection; hepatitis;
KW   liver failure; cancer; cirrhosis; Hammerhead; Inozyme; DNAzyme;
KW   Amberzyme; Zinzyme; ss.
XX
OS   West Nile Virus.
XX
PN   WO200268637-A2.
XX
PD   06-SEP-2002.
XX
PF   19-OCT-2001; 2001WO-US048350.
XX
PR   20-OCT-2000; 2000US-0242411P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J A.
XX
PI   Blatt L,  Mcswiggen JA;
XX
DR   WPI; 2002-706994/76.
XX
PT   New nucleic acid molecule that modulates replication of West Nile Virus
PT   (WNV), useful for treating a condition related to WNV infection e.g.
PT   pancreatitis, meningitis, hepatocellular carcinoma or cirrhosis.
XX
PS   Claim 23; SEQ ID NO 1423; 495pp; English.
XX
CC   The invention relates to nucleic acid molecules that modulate replication
CC   of the West Nile Virus (WNV). The nucleic acid molecules are useful for
CC   treating a condition related to WNV infection e.g. pancreatitis,
CC   encephalitis, myocarditis, meningitis, neurologic infection, hepatitis,
CC   liver failure, hepatocellular carcinoma or cirrhosis. The nucleic acid
CC   molecule is selected from the group of ribozymes consisting of
CC   Hammerhead, Inozyme, G-cleaver, DNAzyme, Amberzyme and Zinzyme. The
CC   nucleic acid molecules further comprise at least five ribose residues, at
CC   least ten 2'-O-methyl modifications, phosphorothioate linkages on at
CC   least three of the 5' terminal nucleotides and a 3' end modification of a
CC   3'-3' inverted abasic moiety. Nucleic acid molecules SEQ ID NO 1 to 37080
CC   are claimed; however, SEQ ID NO 2194-2206 and 17502-17514 are not given
CC   in the specification. The present sequence is that of a nucleic acid
CC   molecule of the invention
XX
SQ   Sequence 17 BP; 3 A; 6 C; 8 G; 0 T; 0 U; 0 Other;

  Query Match             15.8%;  Score 12.2;  DB 1;  Length 17;
  Best Local Similarity   82.4%;  Pred. No. 1.1e+02;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         40 GGACCGGCTAAAGCCGG 56
              || ||||| | ||||||
Db          1 GGCCCGGCAAGAGCCGG 17


RESULT 105
ACN09482/c
ID   ACN09482 standard; RNA; 17 BP.
XX
AC   ACN09482;
XX
DT   22-APR-2004  (first entry)
XX
DE   WNV minus strand Hammerhead Ribozyme substrate SEQ ID NO 9485.
XX
KW   WNV; West Nile Virus; antiinflammatory; cytostatic; hepatotropic;
KW   virucide; neuroprotective; antibacterial; replication; pancreatitis;
KW   encephalitis; myocarditis; meningitis; infection; hepatitis;
KW   liver failure; cancer; cirrhosis; Hammerhead; Inozyme; DNAzyme;
KW   Amberzyme; Zinzyme; ss.
XX
OS   West Nile Virus.
XX
PN   WO200268637-A2.
XX
PD   06-SEP-2002.
XX
PF   19-OCT-2001; 2001WO-US048350.
XX
PR   20-OCT-2000; 2000US-0242411P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J A.
XX
PI   Blatt L,  Mcswiggen JA;
XX
DR   WPI; 2002-706994/76.
XX
PT   New nucleic acid molecule that modulates replication of West Nile Virus
PT   (WNV), useful for treating a condition related to WNV infection e.g.
PT   pancreatitis, meningitis, hepatocellular carcinoma or cirrhosis.
XX
PS   Claim 23; SEQ ID NO 9485; 495pp; English.
```

```
XX
CC   The invention relates to nucleic acid molecules that modulate replication
CC   of the West Nile Virus (WNV). The nucleic acid molecules are useful for
CC   treating a condition related to WNV infection e.g. pancreatitis,
CC   encephalitis, myocarditis, meningitis, neurologic infection, hepatitis,
CC   liver failure, hepatocellular carcinoma or cirrhosis. The nucleic acid
CC   molecule is selected from the group of ribozymes consisting of
CC   Hammerhead, Inozyme, G-cleaver, DNAzyme, Amberzyme and Zinzyme. The
CC   nucleic acid molecules further comprise at least five ribose residues, at
CC   least ten 2'-O-methyl modifications, phosphorothioate linkages on at
CC   least three of the 5' terminal nucleotides and a 3' end modification of a
CC   3'-3' inverted abasic moiety. Nucleic acid molecules SEQ ID NO 1 to 37080
CC   are claimed; however, SEQ ID NO 2194-2206 and 17502-17514 are not given
CC   in the specification. The present sequence is that of a nucleic acid
CC   molecule of the invention
XX
SQ   Sequence 17 BP; 0 A; 8 C; 6 G; 0 T; 3 U; 0 Other;

  Query Match             15.8%;  Score 12.2;  DB 1;  Length 17;
  Best Local Similarity   82.4%;  Pred. No. 1.1e+02;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         40 GGACCGGCTAAAGCCGG 56
              || ||||| | ||||||
Db         17 GGCCCGGCAAGAGCCGG 1


RESULT 106
ACD60862/c
ID   ACD60862 standard; RNA; 17 BP.
XX
AC   ACD60862;
XX
DT   24-SEP-2003  (first entry)
XX
DE   HCV DNAzyme substrate sequence #2048.
XX
KW   Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV;
KW   RNA stability; RNA expression; RNA synthesis; antisense;
KW   enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme;
KW   amberzyme; G-cleaver ribozyme; decoy molecule; aptamer;
KW   HBV reverse transcriptase; Enhancer I region; viral replication;
KW   degenerative; disease state; HBV infection; HCV infection; cirrhosis;
KW   liver failure; hepatocellular carcinoma; hepatotropic; cytostatic;
KW   virucide; antiinflammatory; substrate; ss.
XX
OS   Hepatitis C virus.
XX
PN   WO200281494-A1.
XX
PD   17-OCT-2002.
XX
PF   26-MAR-2002; 2002WO-US009187.
XX
PR   26-MAR-2001; 2001US-00817879.
PR   08-JUN-2001; 2001US-00877478.
PR   08-JUN-2001; 2001US-0296876P.
PR   24-OCT-2001; 2001US-0335059P.
PR   05-DEC-2001; 2001US-0337055P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MACE/) MACEJAK D.
PA   (MCSW/) MCSWIGGEN J.
PA   (MORR/) MORRISSEY D.
PA   (PAVC/) PAVCO P.
PA   (LEEP/) LEE P.
PA   (DRAP/) DRAPER K.
PA   (ROBE/) ROBERTS E.
XX
PI   Blatt L,  Macejak D,  Mcswiggen J,  Morrissey D,  Pavco P,  Lee P;
PI   Draper K,  Roberts E;
XX
DR   WPI; 2003-229207/22.
XX
PT   Novel compound useful for treating cirrhosis, liver failure,
PT   hepatocellular carcinoma, or condition associated with hepatitis C virus
PT   infection.
XX
PS   Claim 1; Page 270; 387pp; English.
XX
CC   The present invention relates to nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of Hepatitis C virus (HCV) or
CC   Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense
CC   and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes,
CC   inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed
CC   are nucleic acid decoy molecules and aptamers that bind to HBV reverse
CC   transcriptase and/or HBV reverse transcriptase primer sequences, as well
CC   as oligonucleotides that specifically bind the Enhancer I region of HBV
CC   DNA. The nucleic acids may be used to modulate the expression of HBV
CC   genes and HBV viral replication. Also disclosed is a method for screening
CC   compounds and/or potential therapies directed against HBV, and compounds
CC   that modulate the expression and/or replication of HCV. The compounds and
CC   methods of the invention are useful for the treatment of degenerative and
CC   disease states related to HBV and HCV infection, replication and gene
CC   expression such as cirrhosis, liver failure, and hepatocellular
CC   carcinoma. The present sequence represents a substrate for one of the HCV
CC   DNAzyme or minus strand DNAzyme sequences disclosed in the present
CC   invention
XX
SQ   Sequence 17 BP; 1 A; 7 C; 8 G; 0 T; 1 U; 0 Other;

  Query Match             15.8%;  Score 12.2;  DB 1;  Length 17;
  Best Local Similarity   82.4%;  Pred. No. 1.1e+02;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         30 CGCTCACTCGGGACCGG 46
              ||||| | ||| |||||
Db         17 CGCTCGCGCGGCACCGG 1


RESULT 107
ACD57597
ID   ACD57597 standard; RNA; 17 BP.
XX
AC   ACD57597;
XX
DT   23-SEP-2003  (first entry)
XX
DE   HCV DNAzyme substrate sequence #407.
XX
KW   Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV;
KW   RNA stability; RNA expression; RNA synthesis; antisense;
KW   enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme;
KW   amberzyme; G-cleaver ribozyme; decoy molecule; aptamer;
KW   HBV reverse transcriptase; Enhancer I region; viral replication;
KW   degenerative; disease state; HBV infection; HCV infection; cirrhosis;
KW   liver failure; hepatocellular carcinoma; hepatotropic; cytostatic;
KW   virucide; antiinflammatory; substrate; ss.
XX
OS   Hepatitis C virus.
XX
PN   WO200281494-A1.
XX
PD   17-OCT-2002.
XX
PF   26-MAR-2002; 2002WO-US009187.
XX
PR   26-MAR-2001; 2001US-00817879.
PR   08-JUN-2001; 2001US-00877478.
PR   08-JUN-2001; 2001US-0296876P.
PR   24-OCT-2001; 2001US-0335059P.
PR   05-DEC-2001; 2001US-0337055P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
```

```
PA   (MACE/) MACEJAK D.
PA   (MCSW/) MCSWIGGEN J.
PA   (MORR/) MORRISSEY D.
PA   (PAVC/) PAVCO P.
PA   (LEEP/) LEE P.
PA   (DRAP/) DRAPER K.
PA   (ROBE/) ROBERTS E.
XX
PI   Blatt L,  Macejak D,  Mcswiggen J,  Morrissey D,  Pavco P,  Lee P;
PI   Draper K,  Roberts E;
XX
DR   WPI; 2003-229207/22.
XX
PT   Novel compound useful for treating cirrhosis, liver failure,
PT   hepatocellular carcinoma, or condition associated with hepatitis C virus
PT   infection.
XX
PS   Claim 1; Page 241; 387pp; English.
XX
CC   The present invention relates to nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of Hepatitis C virus (HCV) or
CC   Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense
CC   and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes,
CC   inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed
CC   are nucleic acid decoy molecules and aptamers that bind to HBV reverse
CC   transcriptase and/or HBV reverse transcriptase primer sequences, as well
CC   as oligonucleotides that specifically bind the Enhancer I region of HBV
CC   DNA. The nucleic acids may be used to modulate the expression of HBV
CC   genes and HBV viral replication. Also disclosed is a method for screening
CC   compounds and/or potential therapies directed against HBV, and compounds
CC   that modulate the expression and/or replication of HCV. The compounds and
CC   methods of the invention are useful for the treatment of degenerative and
CC   disease states related to HBV and HCV infection, replication and gene
CC   expression such as cirrhosis, liver failure, and hepatocellular
CC   carcinoma. The present sequence represents a substrate for one of the HCV
CC   DNAzyme or minus strand DNAzyme sequences disclosed in the present
CC   invention
XX
SQ   Sequence 17 BP; 3 A; 6 C; 4 G; 0 T; 4 U; 0 Other;

  Query Match             15.8%;  Score 12.2;  DB 1;  Length 17;
  Best Local Similarity   58.8%;  Pred. No. 1.1e+02;
  Matches   10;  Conservative    4;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         10 CTGGTTCAAGTCGTTCG 26
              | ||::||| :||: ||
Db          1 CAGGUUCAACUCGUCCG 17


RESULT 108
ADI84802/c
ID   ADI84802 standard; RNA; 17 BP.
XX
AC   ADI84802;
XX
DT   03-JUN-2004  (first entry)
XX
DE   HCV DNAzyme substrate sequence #2048.
XX
KW   ss; enzymatic nucleic acid; RNA cleavage; hepatitis C virus; HCV;
KW   HCV infection; type I interferon; DNAzyme.
XX
OS   Hepatitis C virus.
XX
PN   US2003125270-A1.
XX
PD   03-JUL-2003.
XX
PF   18-DEC-2000; 2000US-00740332.
XX
PR   18-DEC-2000; 2000US-00740332.
XX
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J.
PA   (ROBE/) ROBERTS E.
PA   (PAVC/) PAVCO P A.
PA   (MACE/) MACEJACK D.
XX
PI   Blatt L,  Mcswiggen J,  Roberts E,  Pavco PA,  Macejack D;
XX
DR   WPI; 2004-031273/03.
XX
PT   Enzymatic nucleic acid molecules which specifically cleave RNA derived
PT   from hepatitis C virus (HCV), useful for the treatment of HCV infections,
PT   especially in combination with type I interferon therapy.
XX
PS   Claim 1; SEQ ID NO 2048; 198pp; English.
XX
CC   The invention relates to an enzymatic nucleic acid molecule which
CC   specifically cleaves RNA derived from hepatitis C virus (HCV), in which
CC   the binding arms of the enzymatic nucleic acid molecule comprises
CC   sequences complementary to any of the defined substrate sequences given
CC   in the specification. The nucleic acid molecule may be administered for
CC   the treatment of HCV infections, especially in combination with type I
CC   interferons. The present sequence represents a HCV DNAzyme substrate
CC   sequence.
XX
SQ   Sequence 17 BP; 1 A; 7 C; 8 G; 0 T; 1 U; 0 Other;

  Query Match             15.8%;  Score 12.2;  DB 1;  Length 17;
  Best Local Similarity   82.4%;  Pred. No. 1.1e+02;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         30 CGCTCACTCGGGACCGG 46
              ||||| | ||| |||||
Db         17 CGCTCGCGCGGCACCGG 1


RESULT 109
ADI83161
ID   ADI83161 standard; RNA; 17 BP.
XX
AC   ADI83161;
XX
DT   03-JUN-2004  (first entry)
XX
DE   HCV DNAzyme substrate sequence #407.
XX
KW   ss; enzymatic nucleic acid; RNA cleavage; hepatitis C virus; HCV;
KW   HCV infection; type I interferon; DNAzyme.
XX
OS   Hepatitis C virus.
XX
PN   US2003125270-A1.
XX
PD   03-JUL-2003.
XX
PF   18-DEC-2000; 2000US-00740332.
XX
PR   18-DEC-2000; 2000US-00740332.
XX
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J.
PA   (ROBE/) ROBERTS E.
PA   (PAVC/) PAVCO P A.
PA   (MACE/) MACEJACK D.
XX
PI   Blatt L,  Mcswiggen J,  Roberts E,  Pavco PA,  Macejack D;
XX
DR   WPI; 2004-031273/03.
XX
PT   Enzymatic nucleic acid molecules which specifically cleave RNA derived
PT   from hepatitis C virus (HCV), useful for the treatment of HCV infections,
PT   especially in combination with type I interferon therapy.
XX
PS   Claim 1; SEQ ID NO 407; 198pp; English.
```

```
XX
CC   The invention relates to an enzymatic nucleic acid molecule which
CC   specifically cleaves RNA derived from hepatitis C virus (HCV), in which
CC   the binding arms of the enzymatic nucleic acid molecule comprises
CC   sequences complementary to any of the defined substrate sequences given
CC   in the specification. The nucleic acid molecule may be administered for
CC   the treatment of HCV infections, especially in combination with type I
CC   interferons. The present sequence represents a HCV DNAzyme substrate
CC   sequence.
XX
SQ   Sequence 17 BP; 3 A; 6 C; 4 G; 0 T; 4 U; 0 Other;

  Query Match             15.8%;  Score 12.2;  DB 1;  Length 17;
  Best Local Similarity   58.8%;  Pred. No. 1.1e+02;
  Matches   10;  Conservative    4;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         10 CTGGTTCAAGTCGTTCG 26
              | ||::||| :||: ||
Db          1 CAGGUUCAACUCGUCCG 17


RESULT 110
ABH80747/c
ID   ABH80747 standard; DNA; 12 BP.
XX
AC   ABH80747;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 280740 for detecting SNP TSC0009019.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 280740; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 2 A; 0 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             15.6%;  Score 12;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 70;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCAAA 69
              ||||||||||||
Db         12 CCCTTAACCAAA 1


RESULT 111
ABI24046
ID   ABI24046 standard; DNA; 12 BP.
XX
AC   ABI24046;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 324019 for detecting SNP TSC0031735.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 324019; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 1 A; 6 C; 1 G; 4 T; 0 U; 0 Other;

  Query Match             15.6%;  Score 12;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 70;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         27 CTTCGCTCACTC 38
              ||||||||||||
Db          1 CTTCGCTCACTC 12


RESULT 112
ABC51264/c
ID   ABC51264 standard; DNA; 13 BP.
XX
AC   ABC51264;
```

```
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 51281 for detecting SNP TSC0014330.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 51281; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 1 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             15.6%;  Score 12;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          61 TTAACCAAACGT 72
               ||||||||||||
Db          13 TTAACCAAACGT 2


RESULT 113
ABF52143
ID   ABF52143 standard; DNA; 13 BP.
XX
AC   ABF52143;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 152140 for detecting SNP TSC0038439.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 152140; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 3 C; 1 G; 3 T; 0 U; 0 Other;

  Query Match             15.6%;  Score 12;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          61 TTAACCAAACGT 72
               ||||||||||||
Db           2 TTAACCAAACGT 13


RESULT 114
ABC51265
ID   ABC51265 standard; DNA; 13 BP.
XX
AC   ABC51265;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 51282 for detecting SNP TSC0014330.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
```

```
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 51282; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 3 C; 1 G; 3 T; 0 U; 0 Other;

  Query Match             15.6%;  Score 12;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
              ||||||||||||
Db          1 TTAACCAAACGT 12


RESULT 115
ABF52142/c
ID   ABF52142 standard; DNA; 13 BP.
XX
AC   ABF52142;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 152139 for detecting SNP TSC0038439.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 152139; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 1 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             15.6%;  Score 12;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
              ||||||||||||
Db         12 TTAACCAAACGT 1


RESULT 116
ABH56997
ID   ABH56997 standard; DNA; 13 BP.
XX
AC   ABH56997;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 256974 for detecting SNP TSC0006666.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 256974; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 5 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             15.6%;  Score 12;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 CCTTAACCAAAC 70
              ||||||||||||
```

```
Db          2 CCTTAACCAAAC 13

RESULT 117
ABH56996/c
ID   ABH56996 standard; DNA; 13 BP.
XX
AC   ABH56996;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 256973 for detecting SNP TSC0006666.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 256973; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             15.6%;  Score 12;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 CCTTAACCAAAC 70
              ||||||||||||
Db         12 CCTTAACCAAAC 1


RESULT 118
AAZ62721
ID   AAZ62721 standard; RNA; 15 BP.
XX
AC   AAZ62721;
XX
DT   28-MAR-2000  (first entry)
XX
DE   Substrate for HH ribozyme HCV-6107 which cleaves HCV RNA at nt. 6107.
XX
KW   Enzymatic nucleic acid; hammerhead ribozyme; virus replication; cleavage;
KW   cirrhosis; liver failure; hepatocellular carcinoma; interferon; cancer;
KW   autoimmune disease; ss.
XX
OS   Hepatitis C virus.
XX
PN   WO9955847-A2.
XX
PD   04-NOV-1999.
XX
PF   26-APR-1999;   99WO-US009027.
XX
PR   27-APR-1998;   98US-0083217P.
PR   18-SEP-1998;   98US-0100842P.
PR   25-FEB-1999;   99US-00257608.
PR   23-MAR-1999;   99US-00274553.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Mcswiggen JA,  Roberts E,  Pavco PA,  Macejak D;
XX
DR   WPI; 2000-062023/05.
XX
PT   Novel ribozymes for the treatment of diseases and conditions related to
PT   hepatitis C infection.
XX
PS   Claim 1; Page 61; 123pp; English.
XX
CC   The present sequence represents the preferred target sequence of an
CC   enzymatic nucleic acid, especially a hammerhead ribozyme, which cleaves
CC   the Hepatitis C virus (HCV) RNA sequence at the base position given in
CC   the descriptor line. The HCV sequence was screened for optimal ribozyme
CC   target sites using a computer folding algorithm and regions of the mRNA
CC   which did not form secondary folding structures and contained potential
CC   ribozyme cleavage sites were identified. Ribozymes were synthesised to
CC   target these sites and their activities optimised by either varying the
CC   length of the binding arms or by modification to prevent degradation by
CC   nucleases. The ribozymes of the invention inhibit gene expression and/or
CC   viral replication, and are used to treat diseases associated with
CC   Hepatitis C virus (HCV) infection, e.g. cirrhosis, liver failure and
CC   hepatocellular carcinoma. The ribozymes may be used in combination with
CC   interferon to treat HCV infection, other infectious diseases, autoimmune
CC   diseases, and cancer
XX
SQ   Sequence 15 BP; 1 A; 5 C; 4 G; 0 T; 5 U; 0 Other;

  Query Match             15.6%;  Score 12;  DB 1;  Length 15;
  Best Local Similarity   66.7%;  Pred. No. 97;
  Matches    8;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCGC 32
              ||::|||::|||
Db          4 CGUUCGCUUCGC 15


RESULT 119
ABX00572
ID   ABX00572 standard; RNA; 15 BP.
XX
AC   ABX00572;
XX
DT   23-DEC-2002  (first entry)
XX
DE   Hepatitis C virus substrate #354 for HCV hammerhead ribozyme #354.
XX
KW   Enzymatic nucleic acid; RNA cleavage; Hepatitis C virus infection;
KW   HCV ribozyme; HCV expression; HCV replication; cirrhosis; virucide;
KW   liver failure; hepatocellular carcinoma; HCV infection; drug therapy;
KW   type I interferon; interferon alpha; interferon beta; cytostatic;
KW   interferon gamma; consensus interferon; hepatotropic; antiinflammatory;
KW   substrate; hammerhead ribozyme; HH ribozyme; ss.
XX
OS   Hepatitis C virus.
```

```
XX
PN   US2002082225-A1.
XX
PD   27-JUN-2002.
XX
PF   23-MAR-1999;   99US-00274553.
XX
PR   23-MAR-1999;   99US-00274553.
XX
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J A.
PA   (ROBE/) ROBERTS B.
PA   (PAVC/) PAVCO P A.
PA   (MACE/) MACEJACK D.
XX
PI   Blatt L,  Mcswiggen JA,  Roberts B,  Pavco PA,  Macejack D;
XX
DR   WPI; 2002-617759/66.
XX
PT   New ribozymes targeting RNA derived from hepatitis C virus inhibit viral
PT   replication and are useful to treat hepatitis C virus infections and
PT   cirrhosis, liver failure or hepatocellular carcinoma.
XX
PS   Claim 1; Page 31; 80pp; English.
XX
CC   The present invention relates to enzymatic nucleic acids which
CC   specifically cleave RNA derived from Hepatitis C virus (HCV). The
CC   enzymatic nucleic acid or ribozyme is in a hammerhead (HH) or hairpin
CC   (HP) motif where the binding arms comprise sequences complementary to one
CC   of the substrate sequences defined in the specification. The HCV
CC   ribozymes are useful for modulating the expression and/or replication of
CC   HCV. They can be used to treat cirrhosis, liver failure and/or
CC   hepatocellular carcinoma. The HCV ribozymes are also useful for treating
CC   a condition associated with HCV infection in conjunction with one or more
CC   other drug therapies, particularly type I interferon, especially
CC   interferon alpha, beta or gamma or consensus interferon. The present
CC   sequence represents a substrate for a HCV hammerhead (HH) ribozyme. Note:
CC   Some of the sequence data for this patent did not form part of the
CC   printed specification. The complete sequence data for this patent was
CC   obtained in electronic format directly from the USPTO web site at
CC   seqdata.uspto.gov/psipsDIDEntry.html
XX
SQ   Sequence 15 BP; 1 A; 5 C; 4 G; 0 T; 5 U; 0 Other;

  Query Match             15.6%;  Score 12;  DB 1;  Length 15;
  Best Local Similarity   66.7%;  Pred. No. 97;
  Matches    8;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCGC 32
              ||::|||::|||
Db          4 CGUUCGCUUCGC 15


RESULT 120
ACD59758
ID   ACD59758 standard; RNA; 17 BP.
XX
AC   ACD59758;
XX
DT   24-SEP-2003  (first entry)
XX
DE   HCV DNAzyme substrate sequence #1504.
XX
KW   Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV;
KW   RNA stability; RNA expression; RNA synthesis; antisense;
KW   enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme;
KW   amberzyme; G-cleaver ribozyme; decoy molecule; aptamer;
KW   HBV reverse transcriptase; Enhancer I region; viral replication;
KW   degenerative; disease state; HBV infection; HCV infection; cirrhosis;
KW   liver failure; hepatocellular carcinoma; hepatotropic; cytostatic;
KW   virucide; antiinflammatory; substrate; ss.
XX
OS   Hepatitis C virus.
XX
PN   WO200281494-A1.
XX
PD   17-OCT-2002.
XX
PF   26-MAR-2002; 2002WO-US009187.
XX
PR   26-MAR-2001; 2001US-00817879.
PR   08-JUN-2001; 2001US-00877478.
PR   08-JUN-2001; 2001US-0296876P.
PR   24-OCT-2001; 2001US-0335059P.
PR   05-DEC-2001; 2001US-0337055P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MACE/) MACEJAK D.
PA   (MCSW/) MCSWIGGEN J.
PA   (MORR/) MORRISSEY D.
PA   (PAVC/) PAVCO P.
PA   (LEEP/) LEE P.
PA   (DRAP/) DRAPER K.
PA   (ROBE/) ROBERTS E.
XX
PI   Blatt L,  Macejak D,  Mcswiggen J,  Morrissey D,  Pavco P,  Lee P;
PI   Draper K,  Roberts E;
XX
DR   WPI; 2003-229207/22.
XX
PT   Novel compound useful for treating cirrhosis, liver failure,
PT   hepatocellular carcinoma, or condition associated with hepatitis C virus
PT   infection.
XX
PS   Claim 1; Page 260; 387pp; English.
XX
CC   The present invention relates to nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of Hepatitis C virus (HCV) or
CC   Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense
CC   and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes,
CC   inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed
CC   are nucleic acid decoy molecules and aptamers that bind to HBV reverse
CC   transcriptase and/or HBV reverse transcriptase primer sequences, as well
CC   as oligonucleotides that specifically bind the Enhancer I region of HBV
CC   DNA. The nucleic acids may be used to modulate the expression of HBV
CC   genes and HBV viral replication. Also disclosed is a method for screening
CC   compounds and/or potential therapies directed against HBV, and compounds
CC   that modulate the expression and/or replication of HCV. The compounds and
CC   methods of the invention are useful for the treatment of degenerative and
CC   disease states related to HBV and HCV infection, replication and gene
CC   expression such as cirrhosis, liver failure, and hepatocellular
CC   carcinoma. The present sequence represents a substrate for one of the HCV
CC   DNAzyme or minus strand DNAzyme sequences disclosed in the present
CC   invention
XX
SQ   Sequence 17 BP; 1 A; 5 C; 6 G; 0 T; 5 U; 0 Other;

  Query Match             15.6%;  Score 12;  DB 1;  Length 17;
  Best Local Similarity   66.7%;  Pred. No. 1.2e+02;
  Matches    8;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCGC 32
              ||::|||::|||
Db          4 CGUUCGCUUCGC 15


RESULT 121
ACD62855/c
ID   ACD62855 standard; RNA; 17 BP.
XX
AC   ACD62855;
XX
DT   24-SEP-2003  (first entry)
XX
DE   HCV minus strand DNAzyme substrate sequence #774.
```

```
XX
KW   Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV;
KW   RNA stability; RNA expression; RNA synthesis; antisense;
KW   enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme;
KW   amberzyme; G-cleaver ribozyme; decoy molecule; aptamer;
KW   HBV reverse transcriptase; Enhancer I region; viral replication;
KW   degenerative; disease state; HBV infection; HCV infection; cirrhosis;
KW   liver failure; hepatocellular carcinoma; hepatotropic; cytostatic;
KW   virucide; antiinflammatory; substrate; ss.
XX
OS   Hepatitis C virus.
XX
PN   WO200281494-A1.
XX
PD   17-OCT-2002.
XX
PF   26-MAR-2002; 2002WO-US009187.
XX
PR   26-MAR-2001; 2001US-00817879.
PR   08-JUN-2001; 2001US-00877478.
PR   08-JUN-2001; 2001US-0296876P.
PR   24-OCT-2001; 2001US-0335059P.
PR   05-DEC-2001; 2001US-0337055P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MACE/) MACEJAK D.
PA   (MCSW/) MCSWIGGEN J.
PA   (MORR/) MORRISSEY D.
PA   (PAVC/) PAVCO P.
PA   (LEEP/) LEE P.
PA   (DRAP/) DRAPER K.
PA   (ROBE/) ROBERTS E.
XX
PI   Blatt L,  Macejak D,  Mcswiggen J,  Morrissey D,  Pavco P,  Lee P;
PI   Draper K,  Roberts E;
XX
DR   WPI; 2003-229207/22.
XX
PT   Novel compound useful for treating cirrhosis, liver failure,
PT   hepatocellular carcinoma, or condition associated with hepatitis C virus
PT   infection.
XX
PS   Claim 1; Page 288; 387pp; English.
XX
CC   The present invention relates to nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of Hepatitis C virus (HCV) or
CC   Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense
CC   and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes,
CC   inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed
CC   are nucleic acid decoy molecules and aptamers that bind to HBV reverse
CC   transcriptase and/or HBV reverse transcriptase primer sequences, as well
CC   as oligonucleotides that specifically bind the Enhancer I region of HBV
CC   DNA. The nucleic acids may be used to modulate the expression of HBV
CC   genes and HBV viral replication. Also disclosed is a method for screening
CC   compounds and/or potential therapies directed against HBV, and compounds
CC   that modulate the expression and/or replication of HCV. The compounds and
CC   methods of the invention are useful for the treatment of degenerative and
CC   disease states related to HBV and HCV infection, replication and gene
CC   expression such as cirrhosis, liver failure, and hepatocellular
CC   carcinoma. The present sequence represents a substrate for one of the HCV
CC   DNAzyme or minus strand DNAzyme sequences disclosed in the present
CC   invention
XX
SQ   Sequence 17 BP; 4 A; 7 C; 5 G; 0 T; 1 U; 0 Other;

  Query Match             15.6%;  Score 12;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCGC 32
               ||||||||||||
Db         15 CGTTCGCTTCGC 4
```

```
RESULT 122
ADI85805/c
ID   ADI85805 standard; RNA; 17 BP.
XX
AC   ADI85805;
XX
DT   03-JUN-2004  (first entry)
XX
DE   HCV DNAzyme substrate sequence #3051.
XX
KW   ss; enzymatic nucleic acid; RNA cleavage; hepatitis C virus; HCV;
KW   HCV infection; type I interferon; DNAzyme.
XX
OS   Hepatitis C virus.
XX
PN   US2003125270-A1.
XX
PD   03-JUL-2003.
XX
PF   18-DEC-2000; 2000US-00740332.
XX
PR   18-DEC-2000; 2000US-00740332.
XX
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J.
PA   (ROBE/) ROBERTS E.
PA   (PAVC/) PAVCO P A.
PA   (MACE/) MACEJACK D.
XX
PI   Blatt L,  Mcswiggen J,  Roberts E,  Pavco PA,  Macejack D;
XX
DR   WPI; 2004-031273/03.
XX
PT   Enzymatic nucleic acid molecules which specifically cleave RNA derived
PT   from hepatitis C virus (HCV), useful for the treatment of HCV infections,
PT   especially in combination with type I interferon therapy.
XX
PS   Claim 1; SEQ ID NO 3051; 198pp; English.
XX
CC   The invention relates to an enzymatic nucleic acid molecule which
CC   specifically cleaves RNA derived from hepatitis C virus (HCV), in which
CC   the binding arms of the enzymatic nucleic acid molecule comprises
CC   sequences complementary to any of the defined substrate sequences given
CC   in the specification. The nucleic acid molecule may be administered for
CC   the treatment of HCV infections, especially in combination with type I
CC   interferons. The present sequence represents a HCV DNAzyme substrate
CC   sequence.
XX
SQ   Sequence 17 BP; 4 A; 7 C; 5 G; 0 T; 1 U; 0 Other;

  Query Match             15.6%;  Score 12;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCGC 32
               ||||||||||||
Db         15 CGTTCGCTTCGC 4


RESULT 123
ADI84258
ID   ADI84258 standard; RNA; 17 BP.
XX
AC   ADI84258;
XX
DT   03-JUN-2004  (first entry)
XX
DE   HCV DNAzyme substrate sequence #1504.
XX
KW   ss; enzymatic nucleic acid; RNA cleavage; hepatitis C virus; HCV;
KW   HCV infection; type I interferon; DNAzyme.
```

```
XX
OS   Hepatitis C virus.
XX
PN   US2003125270-A1.
XX
PD   03-JUL-2003.
XX
PF   18-DEC-2000; 2000US-00740332.
XX
PR   18-DEC-2000; 2000US-00740332.
XX
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J.
PA   (ROBE/) ROBERTS E.
PA   (PAVC/) PAVCO P A.
PA   (MACE/) MACEJACK D.
XX
PI   Blatt L, Mcswiggen J, Roberts E, Pavco PA, Macejack D;
XX
DR   WPI; 2004-031273/03.
XX
PT   Enzymatic nucleic acid molecules which specifically cleave RNA derived
PT   from hepatitis C virus (HCV), useful for the treatment of HCV infections,
PT   especially in combination with type I interferon therapy.
XX
PS   Claim 1; SEQ ID NO 1504; 198pp; English.
XX
CC   The invention relates to an enzymatic nucleic acid molecule which
CC   specifically cleaves RNA derived from hepatitis C virus (HCV), in which
CC   the binding arms of the enzymatic nucleic acid molecule comprises
CC   sequences complementary to any of the defined substrate sequences given
CC   in the specification. The nucleic acid molecule may be administered for
CC   the treatment of HCV infections, especially in combination with type I
CC   interferons. The present sequence represents a HCV DNAzyme substrate
CC   sequence.
XX
SQ   Sequence 17 BP; 1 A; 5 C; 6 G; 0 T; 5 U; 0 Other;

  Query Match             15.6%;  Score 12;  DB 1;  Length 17;
  Best Local Similarity   66.7%;  Pred. No. 1.2e+02;
  Matches    8;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCGC 32
              ||::|||::|||
Db          4 CGUUCGCUUCGC 15


RESULT 124
ACD66439/c
ID   ACD66439 standard; RNA; 15 BP.
XX
AC   ACD66439;
XX
DT   23-SEP-2003  (first entry)
XX
DE   Anti-HCV enzymatic nucleic acid substrate sequence #25.
XX
KW   Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV;
KW   RNA stability; RNA expression; RNA synthesis; antisense;
KW   enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme;
KW   amberzyme; G-cleaver ribozyme; decoy molecule; aptamer;
KW   HBV reverse transcriptase; Enhancer I region; anti-HCV;
KW   viral replication; degenerative; disease state; HBV infection;
KW   HCV infection; cirrhosis; liver failure; hepatocellular carcinoma;
KW   hepatotropic; cytostatic; virucide; antiinflammatory; substrate; ss.
XX
OS   Hepatitis C virus.
XX
PN   WO200281494-A1.
XX
PD   17-OCT-2002.
XX
PF   26-MAR-2002; 2002WO-US009187.
XX
PR   26-MAR-2001; 2001US-00817879.
PR   08-JUN-2001; 2001US-00877478.
PR   08-JUN-2001; 2001US-0296876P.
PR   24-OCT-2001; 2001US-0335059P.
PR   05-DEC-2001; 2001US-0337055P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MACE/) MACEJAK D.
PA   (MCSW/) MCSWIGGEN J.
PA   (MORR/) MORRISSEY D.
PA   (PAVC/) PAVCO P.
PA   (LEEP/) LEE P.
PA   (DRAP/) DRAPER K.
PA   (ROBE/) ROBERTS E.
XX
PI   Blatt L, Macejak D, Mcswiggen J, Morrissey D, Pavco P, Lee P;
PI   Draper K, Roberts E;
XX
DR   WPI; 2003-229207/22.
XX
PT   Novel compound useful for treating cirrhosis, liver failure,
PT   hepatocellular carcinoma, or condition associated with hepatitis C virus
PT   infection.
XX
PS   Claim 1; Page 326; 387pp; English.
XX
CC   The present invention relates to nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of Hepatitis C virus (HCV) or
CC   Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense
CC   and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes,
CC   inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed
CC   are nucleic acid decoy molecules and aptamers that bind to HBV reverse
CC   transcriptase and/or HBV reverse transcriptase primer sequences, as well
CC   as oligonucleotides that specifically bind the Enhancer I region of HBV
CC   DNA. The nucleic acids may be used to modulate the expression of HBV
CC   genes and HBV viral replication. Also disclosed is a method for screening
CC   compounds and/or potential therapies directed against HBV, and compounds
CC   that modulate the expression and/or replication of HCV. The compounds and
CC   methods of the invention are useful for the treatment of degenerative and
CC   disease states related to HBV and HCV infection, replication and gene
CC   expression such as cirrhosis, liver failure, and hepatocellular
CC   carcinoma. The present sequence represents a substrate for one of the
CC   anti-HCV enzymatic nucleic acid sequences disclosed in the present
CC   invention
XX
SQ   Sequence 15 BP; 4 A; 3 C; 4 G; 0 T; 4 U; 0 Other;

  Query Match             15.3%;  Score 11.8;  DB 1;  Length 15;
  Best Local Similarity   86.7%;  Pred. No. 1.1e+02;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          9 ACTGGTTCAAGTCGT 23
              || ||||||| ||||
Db         15 ACAGGTTCAACTCGT 1


RESULT 125
ACD66322/c
ID   ACD66322 standard; RNA; 15 BP.
XX
AC   ACD66322;
XX
DT   23-SEP-2003  (first entry)
XX
DE   Anti-HCV nucleic acid molecule target sequence #205.
XX
KW   Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV;
KW   RNA stability; RNA expression; RNA synthesis; antisense;
KW   enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme;
KW   amberzyme; G-cleaver ribozyme; decoy molecule; aptamer;
KW   HBV reverse transcriptase; Enhancer I region; anti-HCV;
```

```
KW   viral replication; degenerative; disease state; HBV infection;
KW   HCV infection; cirrhosis; liver failure; hepatocellular carcinoma;
KW   hepatotropic; cytostatic; virucide; antiinflammatory; target; ss.
XX
OS   Hepatitis C virus.
XX
PN   WO200281494-A1.
XX
PD   17-OCT-2002.
XX
PF   26-MAR-2002; 2002WO-US009187.
XX
PR   26-MAR-2001; 2001US-00817879.
PR   08-JUN-2001; 2001US-00877478.
PR   08-JUN-2001; 2001US-0296876P.
PR   24-OCT-2001; 2001US-0335059P.
PR   05-DEC-2001; 2001US-0337055P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MACE/) MACEJAK D.
PA   (MCSW/) MCSWIGGEN J.
PA   (MORR/) MORRISSEY D.
PA   (PAVC/) PAVCO P.
PA   (LEEP/) LEE P.
PA   (DRAP/) DRAPER K.
PA   (ROBE/) ROBERTS E.
XX
PI   Blatt L,  Macejak D,  Mcswiggen J,  Morrissey D,  Pavco P,  Lee P;
PI   Draper K,  Roberts E;
XX
DR   WPI; 2003-229207/22.
XX
PT   Novel compound useful for treating cirrhosis, liver failure,
PT   hepatocellular carcinoma, or condition associated with hepatitis C virus
PT   infection.
XX
PS   Claim 1; Page 322; 387pp; English.
XX
CC   The present invention relates to nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of Hepatitis C virus (HCV) or
CC   Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense
CC   and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes,
CC   inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed
CC   are nucleic acid decoy molecules and aptamers that bind to HBV reverse
CC   transcriptase and/or HBV reverse transcriptase primer sequences, as well
CC   as oligonucleotides that specifically bind the Enhancer I region of HBV
CC   DNA. The nucleic acids may be used to modulate the expression of HBV
CC   genes and HBV viral replication. Also disclosed is a method for screening
CC   compounds and/or potential therapies directed against HBV, and compounds
CC   that modulate the expression and/or replication of HCV. The compounds and
CC   methods of the invention are useful for the treatment of degenerative and
CC   disease states related to HBV and HCV infection, replication and gene
CC   expression such as cirrhosis, liver failure, and hepatocellular
CC   carcinoma. The present sequence represents a target for one of the anti-
CC   HCV nucleic acid molecules disclosed in the present invention
XX
SQ   Sequence 15 BP; 4 A; 3 C; 4 G; 0 T; 4 U; 0 Other;

  Query Match             15.3%;  Score 11.8;  DB 1;  Length 15;
  Best Local Similarity   86.7%;  Pred. No. 1.1e+02;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          9 ACTGGTTCAAGTCGT 23
              || ||||||| ||||
Db         15 ACAGGTTCAACTCGT 1


RESULT 126
ADM81027/c
ID   ADM81027 standard; DNA; 15 BP.
XX
AC   ADM81027;
XX
DT   03-JUN-2004  (first entry)
XX
DE   Oligonucleotide #2 used to illustrate a solid support.
XX
KW   Solid support; semiconducting surface region;
KW   electrografted organic film; biocompatible polymer; ss.
XX
OS   Synthetic.
XX
PN   WO2004005410-A1.
XX
PD   15-JAN-2004.
XX
PF   16-JUN-2003; 2003WO-FR001814.
XX
PR   04-JUL-2002; 2002FR-00008381.
XX
PA   (COMS ) COMMISSARIAT ENERGIE ATOMIQUE.
XX
PI   Bureau C,  Mouanda B,  Ameur S,  Charlier J,  Palacin S;
XX
DR   WPI; 2004-142974/14.
XX
PT   Solid support, e.g. useful for binding molecules of interest, comprises
PT   at least one (semi)conducting surface region of reducible oxide
PT   functionalized with an electrografted organic film.
XX
PS   Example 11; SEQ ID NO 2; 59pp; French.
XX
CC   The present invention relates to a solid support, which comprises at
CC   least one (semi)conducting surface region of reducible oxide
CC   functionalized with an electrografted organic film formed from
CC   electroactive organic precursors having functional groups, at least 90%
CC   of which are accessible for forming covalent, ionic or hydrogen bonds
CC   with complementary groups within the film. The support is useful: as an
CC   adhesion primary (primaire d'adhesion) for binding molecules of interest
CC   or objects bearing a complementary function, especially where the
CC   molecules of interest are proteins and the support is used as a bioactive
CC   surface or protein chip or the molecules of interest are nucleic acid
CC   molecules and the support is used as a bioactive surface or nucleic acid
CC   chip or the molecules of interest or objects bearing a complementary
CC   function are biocompatible polymers and the support is used as a
CC   biocompatible surface or surface with encapsulating properties; or for
CC   adhering objects to (semi)conducting surfaces by surface chemical
CC   reactions. The present sequence was used in an example from the invention
CC   for illustrating binding oligonucleotides on to the solid support.
XX
SQ   Sequence 15 BP; 5 A; 5 C; 3 G; 2 T; 0 U; 0 Other;

  Query Match             15.3%;  Score 11.8;  DB 1;  Length 15;
  Best Local Similarity   86.7%;  Pred. No. 1.1e+02;
  Matches   13;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          12 GGTTCAAGTCGTTCG 26
               | || ||||||||||
Db          15 GCTTGAAGTCGTTCG 1


RESULT 127
ADI87715/c
ID   ADI87715 standard; RNA; 15 BP.
XX
AC   ADI87715;
XX
DT   03-JUN-2004  (first entry)
XX
DE   Anti-HCV molecule target sequence #204.
XX
KW   ss; enzymatic nucleic acid; RNA cleavage; hepatitis C virus; HCV;
KW   HCV infection; type I interferon; DNAzyme.
XX
OS   Hepatitis C virus.
```

XX
PN US2003125270-A1.
XX
PD 03-JUL-2003.
XX
PF 18-DEC-2000; 2000US-00740332.
XX
PR 18-DEC-2000; 2000US-00740332.
XX
PA (BLAT/) BLATT L.
PA (MCSW/) MCSWIGGEN J.
PA (ROBE/) ROBERTS E.
PA (PAVC/) PAVCO P A.
PA (MACE/) MACEJACK D.
XX
PI Blatt L, Mcswiggen J, Roberts E, Pavco PA, Macejack D;
XX
DR WPI; 2004-031273/03.
XX
PT Enzymatic nucleic acid molecules which specifically cleave RNA derived
PT from hepatitis C virus (HCV), useful for the treatment of HCV infections,
PT especially in combination with type I interferon therapy.
XX
PS Claim 1; SEQ ID NO 4758; 198pp; English.
XX
CC The invention relates to an enzymatic nucleic acid molecule which
CC specifically cleaves RNA derived from hepatitis C virus (HCV), in which
CC the binding arms of the enzymatic nucleic acid molecule comprises
CC sequences complementary to any of the defined substrate sequences given
CC in the specification. The nucleic acid molecule may be administered for
CC the treatment of HCV infections, especially in combination with type I
CC interferons. The present sequence represents an anti-HCV molecule target
CC sequence.
XX
SQ Sequence 15 BP; 4 A; 3 C; 4 G; 0 T; 4 U; 0 Other;

Query Match 15.3%; Score 11.8; DB 1; Length 15;
Best Local Similarity 86.7%; Pred. No. 1.1e+02;
Matches 13; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 9 ACTGGTTCAAGTCGT 23
|| ||||||| ||||
Db 15 ACAGGTTCAACTCGT 1

RESULT 128
ADI92423/c
ID ADI92423 standard; RNA; 16 BP.
XX
AC ADI92423;
XX
DT 03-JUN-2004 (first entry)
XX
DE Anti-HCV enzymatic nucleic acid substrate sequence #25.
XX
KW ss; enzymatic nucleic acid; RNA cleavage; hepatitis C virus; HCV;
KW HCV infection; type I interferon; DNAzyme.
XX
OS Hepatitis C virus.
XX
PN US2003125270-A1.
XX
PD 03-JUL-2003.
XX
PF 18-DEC-2000; 2000US-00740332.
XX
PR 18-DEC-2000; 2000US-00740332.
XX
PA (BLAT/) BLATT L.
PA (MCSW/) MCSWIGGEN J.
PA (ROBE/) ROBERTS E.
PA (PAVC/) PAVCO P A.
PA (MACE/) MACEJACK D.
XX
PI Blatt L, Mcswiggen J, Roberts E, Pavco PA, Macejack D;
XX
DR WPI; 2004-031273/03.
XX
PT Enzymatic nucleic acid molecules which specifically cleave RNA derived
PT from hepatitis C virus (HCV), useful for the treatment of HCV infections,
PT especially in combination with type I interferon therapy.
XX
PS Disclosure; SEQ ID NO 9660; 198pp; English.
XX
CC The invention relates to an enzymatic nucleic acid molecule which
CC specifically cleaves RNA derived from hepatitis C virus (HCV), in which
CC the binding arms of the enzymatic nucleic acid molecule comprises
CC sequences complementary to any of the defined substrate sequences given
CC in the specification. The nucleic acid molecule may be administered for
CC the treatment of HCV infections, especially in combination with type I
CC interferons. The present sequence represents an anti-HCV enzymatic
CC nucleic acid substrate sequence.
XX
SQ Sequence 16 BP; 4 A; 3 C; 4 G; 0 T; 4 U; 1 Other;

Query Match 15.3%; Score 11.8; DB 1; Length 16;
Best Local Similarity 86.7%; Pred. No. 1.2e+02;
Matches 13; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy 9 ACTGGTTCAAGTCGT 23
|| ||||||| ||||
Db 15 ACAGGTTCAACTCGT 1

RESULT 129
ABF76366/c
ID ABF76366 standard; DNA; 13 BP.
XX
AC ABF76366;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 176363 for detecting SNP TSC0043771.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 176363; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The

```
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 7 G; 3 T; 0 U; 1 Other;

  Query Match             15.1%;  Score 11.6;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 94;
  Matches   11;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCA 67
              :||||||||||||
Db         13 RCCCCTTAACCA 2


RESULT 130
ABF76367
ID   ABF76367 standard; DNA; 13 BP.
XX
AC   ABF76367;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 176364 for detecting SNP TSC0043771.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 176364; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 7 C; 0 G; 2 T; 0 U; 1 Other;

  Query Match             15.1%;  Score 11.6;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 94;
  Matches   11;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCA 67
              :||||||||||||
Db          1 RCCCCTTAACCA 12


RESULT 131
ABC03832/c
ID   ABC03832 standard; DNA; 13 BP.
XX
AC   ABC03832;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 3823 for detecting SNP TSC0001459.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 3823; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 13;
  Best Local Similarity   92.3%;  Pred. No. 1e+02;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCAAAC 70
              |||||||| ||||
Db         13 CCCTTAACTAAAC 1


RESULT 132
ABH28932/c
ID   ABH28932 standard; DNA; 13 BP.
XX
AC   ABH28932;
XX
DT   22-FEB-2002  (first entry)
XX
```

```
DE   Oligonucleotide SEQ ID NO 228909 for detecting SNP TSC0055838.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 228909; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 1 C; 4 G; 6 T; 0 U; 0 Other;

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 13;
  Best Local Similarity   92.3%;  Pred. No. 1e+02;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAACGT 72
              | ||||||||||||
Db         13 CATAACCAAACGT 1


RESULT 133
ABC03833
ID   ABC03833 standard; DNA; 13 BP.
XX
AC   ABC03833;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 3824 for detecting SNP TSC0001459.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 3824; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 5 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 13;
  Best Local Similarity   92.3%;  Pred. No. 1e+02;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCAAAC 70
              |||||||| ||||
Db          1 CCCTTAACTAAAC 13


RESULT 134
ABH28933
ID   ABH28933 standard; DNA; 13 BP.
XX
AC   ABH28933;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 228910 for detecting SNP TSC0055838.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
```

```
PS   Claim 1; SEQ ID NO 228910; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 4 C; 1 G; 2 T; 0 U; 0 Other;

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 13;
  Best Local Similarity   92.3%;  Pred. No. 1e+02;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAACGT 72
              | ||||||||||||
Db          1 CATAACCAAACGT 13


RESULT 135
ABF25293
ID   ABF25293 standard; DNA; 13 BP.
XX
AC   ABF25293;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 125290 for detecting SNP TSC0031303.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 125290; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 5 C; 1 G; 3 T; 0 U; 0 Other;

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 13;
  Best Local Similarity   92.3%;  Pred. No. 1e+02;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         59 CCTTAACCAAACG 71
              ||||||||| |||
Db          1 CCTTAACCATACG 13


RESULT 136
ABF25292/c
ID   ABF25292 standard; DNA; 13 BP.
XX
AC   ABF25292;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 125289 for detecting SNP TSC0031303.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 125289; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 1 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 13;
  Best Local Similarity   92.3%;  Pred. No. 1e+02;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         59 CCTTAACCAAACG 71
              ||||||||| |||
Db         13 CCTTAACCATACG 1
```

```
RESULT 137
AAT52258
ID   AAT52258 standard; RNA; 15 BP.
XX
AC   AAT52258;
XX
DT   25-MAR-2003  (revised)
DT   01-APR-1997  (first entry)
XX
DE   Mouse ICAM hammerhead ribozyme target sequence (nt. position 765).
XX
KW   Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW   gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW   intercellular adhesion molecule; rel A; tumour necrosis factor;
KW   TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW   translocation; chronic myelogenous leukaemia; CML; cancer;
KW   Philadelphia chromosome; inflammation; autoimmune disease;
KW   atherosclerosis; myocardial infarction; stroke; restenosis;
KW   transplant rejection; rheumatoid arthritis; psoriasis;
KW   myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW   human immunodeficiency virus; acquired immune deficiency syndrome; AIDS;
KW   ss.
XX
OS   Mus musculus.
XX
PN   WO9523225-A2.
XX
PD   31-AUG-1995.
XX
PF   23-FEB-1995;   95WO-IB000156.
XX
PR   23-FEB-1994;   94US-00201109.
PR   29-MAR-1994;   94US-00218934.
PR   04-APR-1994;   94US-00222795.
PR   07-APR-1994;   94US-00224483.
PR   15-APR-1994;   94US-00227958.
PR   15-APR-1994;   94US-00228041.
PR   18-MAY-1994;   94US-00245736.
PR   06-JUL-1994;   94US-00271280.
PR   15-AUG-1994;   94US-00291932.
PR   16-AUG-1994;   94US-00291433.
PR   17-AUG-1994;   94US-00292620.
PR   19-AUG-1994;   94US-00293520.
PR   02-SEP-1994;   94US-00300000.
PR   08-SEP-1994;   94US-00303039.
PR   23-SEP-1994;   94US-00311486.
PR   23-SEP-1994;   94US-00311749.
PR   28-SEP-1994;   94US-00314397.
PR   03-OCT-1994;   94US-00316771.
PR   07-OCT-1994;   94US-00319492.
PR   11-OCT-1994;   94US-00321993.
PR   04-NOV-1994;   94US-00334847.
PR   10-NOV-1994;   94US-00337608.
PR   28-NOV-1994;   94US-00345516.
PR   16-DEC-1994;   94US-00357577.
PR   23-DEC-1994;   94US-00363233.
PR   30-JAN-1995;   95US-00380734.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Stinchcomb DT,  Chowrira B,  Direnzo A,  Draper KG,  Dudycz LW;
PI   Grimm S,  Karpeisky A,  Kisich K,  Matulic-Adamic J,  Mcswiggen JA;
PI   Modak A,  Pavco P,  Beigleman L,  Sullivan SM,  Sweedler D,  Thompson JD;
PI   Tracz D,  Usman N,  Wincott FE,  Woolf T;
XX
DR   WPI; 1995-351090/45.
XX
PT   Ribozymes having modified bases and methods for producing them - for use
PT   in inhibiting disease related genes.
XX
PS   Claim 2; Page 177; 407pp; English.
XX
CC   The present sequence represents a preferred target sequence for an
CC   enzymatic nucleic acid (i.e. a ribozyme) which cleaves ICAM-1 mRNA at the
CC   nucleotide base position indicated in the DE line. Regions of the mRNA
CC   that do not form secondary folding structures and that contain potential
CC   hammerhead and hairpin ribozyme cleavage sites were identified by
CC   computer analysis. Ribozymes directed against these mRNA sequences were
CC   designed and synthesised with modifications that improve their nuclease
CC   resistance. The ribozymes cleave the ICAM-1 target sequences and thereby
CC   inhibit ICAM-1 expression, making them useful for reducing transplant
CC   rejection and alleviating symptoms in patients with rheumatoid arthritis,
CC   asthma and other inflammatory disorders. (Updated on 25-MAR-2003 to
CC   correct PI field.)
XX
SQ   Sequence 15 BP; 1 A; 7 C; 3 G; 0 T; 4 U; 0 Other;

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 15;
  Best Local Similarity   61.5%;  Pred. No. 1.3e+02;
  Matches    8;  Conservative    4;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         18 AGTCGTTCGCTTC 30
              ||:||: |||::|
Db          2 AGUCGUCCGCUUC 14


RESULT 138
AAT52197
ID   AAT52197 standard; RNA; 15 BP.
XX
AC   AAT52197;
XX
DT   25-MAR-2003  (revised)
DT   01-APR-1997  (first entry)
XX
DE   Mouse ICAM hammerhead ribozyme target sequence (nt. position 146).
XX
KW   Enzymatic nucleic acid; ribozyme; trans cleavage; inhibition;
KW   gene expression; downregulation; interleukin-5; IL-5; ICAM-1;
KW   intercellular adhesion molecule; rel A; tumour necrosis factor;
KW   TNF-alpha; respiratory syncytial virus; RSV; bcr-abl; oncogene;
KW   translocation; chronic myelogenous leukaemia; CML; cancer;
KW   Philadelphia chromosome; inflammation; autoimmune disease;
KW   atherosclerosis; myocardial infarction; stroke; restenosis;
KW   transplant rejection; rheumatoid arthritis; psoriasis;
KW   myocardial ischaemia; Kawasaki disease; septic shock; HIV;
KW   human immunodeficiency virus; acquired immune deficiency syndrome; AIDS;
KW   ss.
XX
OS   Mus musculus.
XX
PN   WO9523225-A2.
XX
PD   31-AUG-1995.
XX
PF   23-FEB-1995;   95WO-IB000156.
XX
PR   23-FEB-1994;   94US-00201109.
PR   29-MAR-1994;   94US-00218934.
PR   04-APR-1994;   94US-00222795.
PR   07-APR-1994;   94US-00224483.
PR   15-APR-1994;   94US-00227958.
PR   15-APR-1994;   94US-00228041.
PR   18-MAY-1994;   94US-00245736.
PR   06-JUL-1994;   94US-00271280.
PR   15-AUG-1994;   94US-00291932.
PR   16-AUG-1994;   94US-00291433.
PR   17-AUG-1994;   94US-00292620.
PR   19-AUG-1994;   94US-00293520.
PR   02-SEP-1994;   94US-00300000.
PR   08-SEP-1994;   94US-00303039.
PR   23-SEP-1994;   94US-00311486.
PR   23-SEP-1994;   94US-00311749.
PR   28-SEP-1994;   94US-00314397.
PR   03-OCT-1994;   94US-00316771.
PR   07-OCT-1994;   94US-00319492.
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PR 11-OCT-1994; 94US-00321993.
PR 04-NOV-1994; 94US-00334847.
PR 10-NOV-1994; 94US-00337608.
PR 28-NOV-1994; 94US-00345516.
PR 16-DEC-1994; 94US-00357577.
PR 23-DEC-1994; 94US-00363233.
PR 30-JAN-1995; 95US-00380734.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Stinchcomb DT, Chowrira B, Direnzo A, Draper KG, Dudycz LW;
PI Grimm S, Karpeisky A, Kisich K, Matulic-Adamic J, Mcswiggen JA;
PI Modak A, Pavco P, Beigleman L, Sullivan SM, Sweedler D, Thompson JD;
PI Tracz D, Usman N, Wincott FE, Woolf T;
XX
DR WPI; 1995-351090/45.
XX
PT Ribozymes having modified bases and methods for producing them - for use
PT in inhibiting disease related genes.
XX
PS Claim 2; Page 177; 407pp; English.
XX
CC The present sequence represents a preferred target sequence for an
CC enzymatic nucleic acid (i.e. a ribozyme) which cleaves ICAM-1 mRNA at the
CC nucleotide base position indicated in the DE line. Regions of the mRNA
CC that do not form secondary folding structures and that contain potential
CC hammerhead and hairpin ribozyme cleavage sites were identified by
CC computer analysis. Ribozymes directed against these mRNA sequences were
CC designed and synthesised with modifications that improve their nuclease
CC resistance. The ribozymes cleave the ICAM-1 target sequences and thereby
CC inhibit ICAM-1 expression, making them useful for reducing transplant
CC rejection and alleviating symptoms in patients with rheumatoid arthritis,
CC asthma and other inflammatory disorders. (Updated on 25-MAR-2003 to
CC correct PI field.)
XX
SQ Sequence 15 BP; 1 A; 7 C; 3 G; 0 T; 4 U; 0 Other;

Query Match 14.8%; Score 11.4; DB 1; Length 15;
Best Local Similarity 61.5%; Pred. No. 1.3e+02;
Matches 8; Conservative 4; Mismatches 1; Indels 0; Gaps 0;

Qy 18 AGTCGTTCGCTTC 30
||:||: |||::|
Db 2 AGUCGUCCGCUUC 14

RESULT 139
AAF52741
ID AAF52741 standard; DNA; 15 BP.
XX
AC AAF52741;
XX
DT 30-MAR-2001 (first entry)
XX
DE IGF-I oligonucleotide #3701.
XX
KW Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
KW cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
KW skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
KW IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
KW growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
KW keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
KW hyperneovascular condition; hyperplasia; kidney disease;
KW neovascular condition of the retina; ss.
XX
OS Homo sapiens.
XX
PN WO200078341-A1.
XX
PD 28-DEC-2000.
XX
PF 21-JUN-2000; 2000WO-AU000693.
XX
PR 21-JUN-1999; 99US-0140345P.
XX
PA (MURD-) MURDOCH CHILDRENS RES INST.
XX
PI Wraight CJ, Werther GA, Edmondson SR;
XX
DR WPI; 2001-041421/05.
XX
PT Ameliorating the effects of a disorder, e.g. psoriasis, by administering
PT UV (ultra-violet) treatment (optional) and an antisense nucleic acid that
PT inhibits or reduces growth factor mediated cell proliferation and/or
PT inflammation.
XX
PS Example 8; Page 85; 201pp; English.
XX
CC The present invention relates to a method for ameliorating the effects of
CC skin disorders. The method comprises contacting the skin with an
CC antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
CC receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
CC inhibiting or reducing growth factor mediated cell proliferation,
CC inflammation and/or other disorders. The present sequence is an
CC oligonucleotide which can be used to design the antisense
CC oligonucleotides of the present invention (see AAF45151 and AAF45153-
CC F45161). The method is useful for ameliorating the effects of psoriasis,
CC ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis,
CC neoplasias, scleroderma, warts, benign growths, cancers of the skin, a
CC hyperneovascular condition such as a neovascular condition of the retina,
CC brain or skin, growth factor-mediated malignancies, other sclerotic
CC disease, kidney disease, hyperproliferation of the inside of blood
CC vessels or any other hyperplasia
XX
SQ Sequence 15 BP; 3 A; 5 C; 3 G; 4 T; 0 U; 0 Other;

Query Match 14.8%; Score 11.4; DB 1; Length 15;
Best Local Similarity 92.3%; Pred. No. 1.3e+02;
Matches 12; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 16 CAAGTCGTTCGCT 28
|||||| ||||||
Db 3 CAAGTCCTTCGCT 15

RESULT 140
AAF51764
ID AAF51764 standard; DNA; 15 BP.
XX
AC AAF51764;
XX
DT 30-MAR-2001 (first entry)
XX
DE IGF-I oligonucleotide #2724.
XX
KW Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
KW cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
KW skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
KW IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
KW growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
KW keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
KW hyperneovascular condition; hyperplasia; kidney disease;
KW neovascular condition of the retina; ss.
XX
OS Homo sapiens.
XX
PN WO200078341-A1.
XX
PD 28-DEC-2000.
XX
PF 21-JUN-2000; 2000WO-AU000693.
XX
PR 21-JUN-1999; 99US-0140345P.
XX
PA (MURD-) MURDOCH CHILDRENS RES INST.
XX

```
PI   Wraight CJ,  Werther GA,  Edmondson SR;
XX
DR   WPI; 2001-041421/05.
XX
PT   Ameliorating the effects of a disorder, e.g. psoriasis, by administering
PT   UV (ultra-violet) treatment (optional) and an antisense nucleic acid that
PT   inhibits or reduces growth factor mediated cell proliferation and/or
PT   inflammation.
XX
PS   Example 8; Page 78; 201pp; English.
XX
CC   The present invention relates to a method for ameliorating the effects of
CC   skin disorders. The method comprises contacting the skin with an
CC   antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
CC   receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
CC   inhibiting or reducing growth factor mediated cell proliferation,
CC   inflammation and/or other disorders. The present sequence is an
CC   oligonucleotide which can be used to design the antisense
CC   oligonucleotides of the present invention (see AAF45151 and AAF45153-
CC   F45161). The method is useful for ameliorating the effects of psoriasis,
CC   ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis,
CC   neoplasias, scleroderma, warts, benign growths, cancers of the skin, a
CC   hyperneovascular condition such as a neovascular condition of the retina,
CC   brain or skin, growth factor-mediated malignancies, other sclerotic
CC   disease, kidney disease, hyperproliferation of the inside of blood
CC   vessels or any other hyperplasia
XX
SQ   Sequence 15 BP; 6 A; 6 C; 2 G; 1 T; 0 U; 0 Other;

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 15;
  Best Local Similarity   92.3%;  Pred. No. 1.3e+02;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         42 ACCGGCTAAAGCC 54
              ||||||||||  ||
Db          3 ACCGGCTAAACCC 15


RESULT 141
AAF51768
ID   AAF51768 standard; DNA; 15 BP.
XX
AC   AAF51768;
XX
DT   30-MAR-2001  (first entry)
XX
DE   IGF-I oligonucleotide #2728.
XX
KW   Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
KW   cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
KW   skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
KW   IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
KW   growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
KW   keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
KW   hyperneovascular condition; hyperplasia; kidney disease;
KW   neovascular condition of the retina; ss.
XX
OS   Homo sapiens.
XX
PN   WO200078341-A1.
XX
PD   28-DEC-2000.
XX
PF   21-JUN-2000; 2000WO-AU000693.
XX
PR   21-JUN-1999;   99US-0140345P.
XX
PA   (MURD-) MURDOCH CHILDRENS RES INST.
XX
PI   Wraight CJ,  Werther GA,  Edmondson SR;
XX
DR   WPI; 2001-041421/05.
XX
PT   Ameliorating the effects of a disorder, e.g. psoriasis, by administering
PT   UV (ultra-violet) treatment (optional) and an antisense nucleic acid that
PT   inhibits or reduces growth factor mediated cell proliferation and/or
PT   inflammation.
XX
PS   Example 8; Page 78; 201pp; English.
XX
CC   The present invention relates to a method for ameliorating the effects of
CC   skin disorders. The method comprises contacting the skin with an
CC   antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
CC   receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
CC   inhibiting or reducing growth factor mediated cell proliferation,
CC   inflammation and/or other disorders. The present sequence is an
CC   oligonucleotide which can be used to design the antisense
CC   oligonucleotides of the present invention (see AAF45151 and AAF45153-
CC   F45161). The method is useful for ameliorating the effects of psoriasis,
CC   ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis,
CC   neoplasias, scleroderma, warts, benign growths, cancers of the skin, a
CC   hyperneovascular condition such as a neovascular condition of the retina,
CC   brain or skin, growth factor-mediated malignancies, other sclerotic
CC   disease, kidney disease, hyperproliferation of the inside of blood
CC   vessels or any other hyperplasia
XX
SQ   Sequence 15 BP; 3 A; 5 C; 6 G; 1 T; 0 U; 0 Other;

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 15;
  Best Local Similarity   92.3%;  Pred. No. 1.3e+02;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         44 CGGCTAAAGCCGG 56
              ||||||||  ||||
Db          1 CGGCTAAACCCGG 13


RESULT 142
AAF52746
ID   AAF52746 standard; DNA; 15 BP.
XX
AC   AAF52746;
XX
DT   30-MAR-2001  (first entry)
XX
DE   IGF-I oligonucleotide #3706.
XX
KW   Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
KW   cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
KW   skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
KW   IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
KW   growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
KW   keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
KW   hyperneovascular condition; hyperplasia; kidney disease;
KW   neovascular condition of the retina; ss.
XX
OS   Homo sapiens.
XX
PN   WO200078341-A1.
XX
PD   28-DEC-2000.
XX
PF   21-JUN-2000; 2000WO-AU000693.
XX
PR   21-JUN-1999;   99US-0140345P.
XX
PA   (MURD-) MURDOCH CHILDRENS RES INST.
XX
PI   Wraight CJ,  Werther GA,  Edmondson SR;
XX
DR   WPI; 2001-041421/05.
XX
PT   Ameliorating the effects of a disorder, e.g. psoriasis, by administering
PT   UV (ultra-violet) treatment (optional) and an antisense nucleic acid that
PT   inhibits or reduces growth factor mediated cell proliferation and/or
PT   inflammation.
```

```
XX
PS   Example 8; Page 85; 201pp; English.
XX
CC   The present invention relates to a method for ameliorating the effects of
CC   skin disorders. The method comprises contacting the skin with an
CC   antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
CC   receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
CC   inhibiting or reducing growth factor mediated cell proliferation,
CC   inflammation and/or other disorders. The present sequence is an
CC   oligonucleotide which can be used to design the antisense
CC   oligonucleotides of the present invention (see AAF45151 and AAF45153-
CC   F45161). The method is useful for ameliorating the effects of psoriasis,
CC   ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis,
CC   neoplasias, scleroderma, warts, benign growths, cancers of the skin, a
CC   hyperneovascular condition such as a neovascular condition of the retina,
CC   brain or skin, growth factor-mediated malignancies, other sclerotic
CC   disease, kidney disease, hyperproliferation of the inside of blood
CC   vessels or any other hyperplasia
XX
SQ   Sequence 15 BP; 0 A; 6 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 15;
  Best Local Similarity   92.3%;  Pred. No. 1.3e+02;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         19 GTCGTTCGCTTCG 31
               ||| |||||||||
Db          1 GTCCTTCGCTTCG 13


RESULT 143
AAH46687/c
ID   AAH46687 standard; DNA; 15 BP.
XX
AC   AAH46687;
XX
DT   19-SEP-2001  (first entry)
XX
DE   Target virus detection probe #8.
XX
KW   Target virus detection probe; FRET; labelled probe;
KW   fluorescence resonance energy transfer; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   11
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "modified by Cy5"
XX
PN   JP2000312589-A.
XX
PD   14-NOV-2000.
XX
PF   16-JUL-1999;   99JP-00203474.
XX
PR   04-MAR-1999;   99JP-00057132.
XX
PA   (BUNS-) BUNSHI BIOHOTONICS KENKYUSHO KK.
XX
DR   WPI; 2001-400707/43.
XX
PT   Detecting a virus comprises a probe formed between at least two same
PT   energy donor fluorescent pigments (dfp) and an energy acceptor
PT   fluorescent pigment (afp) in which the energy from (dfp) is relayed to
PT   (afp) successively and transferred.
XX
PS   Disclosure; Page 9; 40pp; Japanese.
XX
CC   The present invention describes a method of detecting a target virus
CC   using fluorescence resonance energy transfer (FRET), involving reacting
CC   with a labelled probe formed between at least two same energy donor
CC   fluorescent pigments and an energy acceptor fluorescent pigment in which
CC   the energy from the former is relayed to the latter successively and
CC   transferred. The probe can be used for the detection of a target virus.
CC   The present sequence is a probe described in the exemplification of the
CC   invention
XX
SQ   Sequence 15 BP; 3 A; 3 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 15;
  Best Local Similarity   92.3%;  Pred. No. 1.3e+02;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         63 AACCAAACGTTAG 75
               ||||| |||||||
Db         14 AACCACACGTTAG 2


RESULT 144
AAK98689
ID   AAK98689 standard; DNA; 15 BP.
XX
AC   AAK98689;
XX
DT   19-APR-2002  (first entry)
XX
DE   DNA mutagenesis method gapped duplex oligonucleotide #6.
XX
KW   DNA mutagenesis; DNA replication; UmuD'; RecA; SSB protein;
KW   trans-lesion replicating DNA polymerase; forensic; UmuC; ds.
XX
OS   Synthetic.
XX
PN   US6333178-B1.
XX
PD   25-DEC-2001.
XX
PF   12-SEP-2000; 2000US-00660552.
XX
PR   30-JUL-1999;   99US-0146162P.
PR   27-JUL-2000;  2000US-00627399.
XX
PA   (YEDA ) YEDA RES & DEV CO LTD.
XX
PI   Livneh Z,  Reuven NB,  Tomer G;
XX
DR   WPI; 2002-153822/20.
XX
PT   Replication of damaged DNA, useful e.g. for forensic studies, using a
PT   trans-lesion replicating polymerase, also useful for mutagenesis.
XX
PS   Example 1; Col 14; 68pp; English.
XX
CC   The present invention relates to a method for the replication of a DNA
CC   molecule, which has at least one sites of lesion damage, by treatment
CC   with (i) a trans-lesion replicating DNA polymerase, (ii) mixture of
CC   UmuD', RecA and SSB (single-strand binding) proteins, (iii) nucleoside 5'
CC   -triphosphates and (iv) divalent metal ions. The method can be used for
CC   the replication of damaged DNA, especially ancient DNA or, for forensic
CC   purposes, DNA from blood stains that have been exposed to sunlight or
CC   oxidation, also for mutagenesis of DNA, including incorporation of non-
CC   natural bases, e.g. for labeling or detection. The present sequence is an
CC   oligonucleotide used to produce a gapped duplex for use as described in
CC   the exemplification of the invention
XX
SQ   Sequence 15 BP; 3 A; 4 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 15;
  Best Local Similarity   92.3%;  Pred. No. 1.3e+02;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         10 CTGGTTCAAGTCG 22
               |||||||||| |
Db          1 CTGGTTCAAGTAG 13
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```
RESULT 145
AAK98686
ID   AAK98686 standard; DNA; 15 BP.
XX
AC   AAK98686;
XX
DT   19-APR-2002  (first entry)
XX
DE   DNA mutagenesis method gapped duplex oligonucleotide #3.
XX
KW   DNA mutagenesis; DNA replication; UmuD'; RecA; SSB protein;
KW   trans-lesion replicating DNA polymerase; forensic; UmuC; ds.
XX
OS   Synthetic.
XX
PN   US6333178-B1.
XX
PD   25-DEC-2001.
XX
PF   12-SEP-2000; 2000US-00660552.
XX
PR   30-JUL-1999;   99US-0146162P.
PR   27-JUL-2000; 2000US-00627399.
XX
PA   (YEDA ) YEDA RES & DEV CO LTD.
XX
PI   Livneh Z,  Reuven NB,  Tomer G;
XX
DR   WPI; 2002-153822/20.
XX
PT   Replication of damaged DNA, useful e.g. for forensic studies, using a
PT   trans-lesion replicating polymerase, also useful for mutagenesis.
XX
PS   Example 1; Col 14; 68pp; English.
XX
CC   The present invention relates to a method for the replication of a DNA
CC   molecule, which has at least one sites of lesion damage, by treatment
CC   with (i) a trans-lesion replicating DNA polymerase, (ii) mixture of
CC   UmuD', RecA and SSB (single-strand binding) proteins, (iii) nucleoside 5'
CC   -triphosphates and (iv) divalent metal ions. The method can be used for
CC   the replication of damaged DNA, especially ancient DNA or, for forensic
CC   purposes, DNA from blood stains that have been exposed to sunlight or
CC   oxidation, also for mutagenesis of DNA, including incorporation of non-
CC   natural bases, e.g. for labeling or detection. The present sequence is an
CC   oligonucleotide used to produce a gapped duplex for use as described in
CC   the exemplification of the invention
XX
SQ   Sequence 15 BP; 3 A; 4 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 15;
  Best Local Similarity   92.3%;  Pred. No. 1.3e+02;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         10 CTGGTTCAAGTCG 22
               ||||||||||| |
Db          1 CTGGTTCAAGTAG 13


RESULT 146
AAD26855/c
ID   AAD26855 standard; DNA; 15 BP.
XX
AC   AAD26855;
XX
DT   26-MAR-2002  (first entry)
XX
DE   Human GPR4 gene polymorphism detecting ASO primer #14.
XX
KW   Human; G-protein coupled receptor 4; GPR4; haplotyping; polymorphism;
KW   allele-specific oligonucleotide; ASO; primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200187904-A2.
XX
PD   22-NOV-2001.
XX
PF   09-MAY-2001; 2001WO-US015097.
XX
PR   17-MAY-2000; 2000US-0204928P.
XX
PA   (GENA-) GENAISSANCE PHARM INC.
XX
PI   Bentivegna SC,  Duda AE,  Kazemi A,  Koshy B;
XX
DR   WPI; 2002-097579/13.
XX
PT   Haplotyping, (H1), the G-protein coupled receptor 4 (GPR4) gene of an
PT   individual, comprising determining which haplotype an individual.
XX
PS   Claim 15; Page 13; 61pp; English.
XX
CC   The invention relates to G-protein coupled receptor 4 (GPR4) gene
CC   variants. The data about the GPR4 polynucleotides and polypeptides and
CC   the polymorphisms associated with them are useful for haplotyping at the
CC   GPR4 locus. Allele-specific oligonucleotide (ASO) is useful as probes and
CC   primers for assaying a polymorphism in GPR4 gene. The present sequence is
CC   an ASO primer used to detect human GPR4 gene polymorphism
XX
SQ   Sequence 15 BP; 3 A; 3 C; 7 G; 1 T; 0 U; 1 Other;

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 15;
  Best Local Similarity   80.0%;  Pred. No. 1.3e+02;
  Matches   12;  Conservative    1;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         27 CTTCGCTCACTCGGG 41
              |:|||||||| | ||
Db         15 CYTCGCTCACCCTGG 1


RESULT 147
AAS19789
ID   AAS19789 standard; DNA; 15 BP.
XX
AC   AAS19789;
XX
DT   08-MAY-2002  (first entry)
XX
DE   ASO primer #47 to detect human RANGAP1 gene polymorphisms.
XX
KW   Human; single nucleotide polymorphism; SNP; RANGAP1;
KW   haplotyping chromosome 22q13.2-q13.31; Ran GTPase activating protein 1;
KW   genotyping; cancer; irregular cell cycle associated disorder; ASO;
KW   primer; ss; allele-specific oligonucleotide.
XX
OS   Homo sapiens.
XX
PN   WO200179240-A2.
XX
PD   25-OCT-2001.
XX
PF   17-APR-2001; 2001WO-US012455.
XX
PR   17-APR-2000; 2000US-0198072P.
XX
PA   (GENA-) GENAISSANCE PHARM INC.
XX
PI   Chew A,  Choi JY,  Koshy B;
XX
DR   WPI; 2002-075068/10.
XX
PT   Genotyping human Ran GTPase activating protein 1 gene of individual for
PT   determining haplotype of individual, involves determining identity of
PT   nucleotide pair at specific polymorphic sites for two copies of the gene.
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XX
PS   Claim 15; Page 15; 148pp; English.
XX
CC   The present invention relates to novel single nucleotide polymorphisms
CC   (SNPs) in the human Ran GTPase activating protein 1 (RANGAP1) gene
CC   located on chromosome 22q13.2-q13.31, and methods for haplotyping and/or
CC   genotyping the RANGAP1 gene. The methods of the invention make use of
CC   allele-specific oligonucleotides (ASOs) as probes and primers and/or
CC   primer-extension oligonucleotides for detecting the RANGAP1 gene
CC   polymorphisms. The polynucleotides and screened compounds are useful for
CC   treatment of diseases associated with RANGAP1 activity, such as cancer
CC   and other disorders associated with an irregular cell cycle. AAS19743-
CC   AAS19820 represent ASO primers for detecting human RANGAP1 gene
CC   polymorphisms
XX
SQ   Sequence 15 BP; 2 A; 6 C; 2 G; 4 T; 0 U; 1 Other;

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 15;
  Best Local Similarity   92.3%;  Pred. No. 1.3e+02;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         32 CTCACTCGGGACC 44
              ||||||| |||||
Db          1 CTCACTCTGGACC 13


RESULT 148
AAS16735
ID   AAS16735 standard; DNA; 15 BP.
XX
AC   AAS16735;
XX
DT   14-FEB-2002  (first entry)
XX
DE   Human APOA4 allele specific oligonucleotide, ASO, PCR primer #8.
XX
KW   Human; ss; APOA4; apolipoprotein A-IV; antiatherosclerotic; cardiant;
KW   haplotype; chromosome 11q23-qter; coronary heart disease; obesity;
KW   atherosclerosis; PCR primer.
XX
OS   Homo sapiens.
XX
PN   WO200177124-A2.
XX
PD   18-OCT-2001.
XX
PF   03-APR-2001; 2001WO-US010670.
XX
PR   05-APR-2000; 2000US-0194362P.
XX
PA   (GENA-) GENAISSANCE PHARM INC.
XX
PI   Bentivegna SC,  Choi JY,  Kliem SE,  Koshy B;
XX
DR   WPI; 2002-041281/05.
XX
PT   New haplotypes of the human apolipoprotein A-IV gene, useful to diagnose
PT   and treat disorders associated with its abnormal expression or function
PT   such as coronary artery disease.
XX
PS   Claim 16; Page 15; 71pp; English.
XX
CC   The invention relates to haplotyping the human apolipoprotein A-IV
CC   (APOA4) gene of an individual, comprising determining if the individual
CC   has one of the APOA4 haplotypes or haplotype pairs fully defined in the
CC   specification. Also disclosed are genotyping oligonucleotides (or allele
CC   specific oligonucleotides, ASO) as well as methods for correlating a
CC   particular haplotype pair with a trait e.g. obesity, in a population. The
CC   APOA4 gene is located on chromosome 11q23-qter. The methods of the
CC   invention are useful to diagnose and develop treatment for disorders
CC   associated with abnormal APOA4 expression or function, for example
CC   coronary heart disease and atherosclerosis. The APOA4 isogenes and
CC   screened compounds are useful for the treatment of disorders associated
CC   with abnormal APOA4 expression or function such as coronary artery
CC   disease. The present sequence is an APOA4 allele specific
CC   oligonucleotide, ASO, PCR primer used to detect an APOA4 polymorphism
XX
SQ   Sequence 15 BP; 2 A; 7 C; 4 G; 1 T; 0 U; 1 Other;

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 15;
  Best Local Similarity   80.0%;  Pred. No. 1.3e+02;
  Matches   12;  Conservative    1;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         51 AGCCGGCCCCTTAAC 65
              |||||| |||| |:|
Db          1 AGCCGGGCCCTCARC 15


RESULT 149
AAX17954/c
ID   AAX17954 standard; cDNA; 16 BP.
XX
AC   AAX17954;
XX
DT   11-MAY-1999  (first entry)
XX
DE   Triplet repeat sequence PCR primer #4.
XX
KW   Primer; PCR; amplification; triplet repeat; spinobulbar atrophy;
KW   myotonic dystrophy; spinocerebellar ataxia; Huntington's disease;
KW   fragile X syndrome; Behcet's disease; diagnosis; ss.
XX
OS   Synthetic.
XX
PN   WO9856950-A1.
XX
PD   17-DEC-1998.
XX
PF   10-JUN-1998;   98WO-FR001187.
XX
PR   11-JUN-1997;   97FR-00007225.
XX
PA   (DAUS-) FOND DAUSSET-CEPH JEAN.
XX
PI   Neri C,  Cann HM;
XX
DR   WPI; 1999-070334/06.
XX
PT   DNA sequences rich in repeated nucleotide triplets - used for the
PT   diagnosis and prognosis of diseases associated with trinucleotide
PT   repeats.
XX
PS   Claim 5; Page 11; 30pp; French.
XX
CC   Primers AAX17951-X17974 are used to PCR amplify sequences containing the
CC   triplet repeat sequences CAG/CTG or CGG/GCC. The amplified sequences can
CC   be compared to sequences from a patient to determine presence of
CC   additional trinucleotide repeats (TNR), specifically for assessing the
CC   risk of developing a TNR-related disease (e.g. spinobulbar atrophy;
CC   myotonic dystrophy; spinocerebellar ataxia; Huntington's disease, fragile
CC   X syndrome or Behcet's disease). The method is especially useful for
CC   early diagnosis or specific monitoring, but if the disease is associated
CC   with a relatively small variation in the number of repeats, it may also
CC   be used to predict the onset of disease and/or its severity
XX
SQ   Sequence 16 BP; 6 A; 3 C; 6 G; 1 T; 0 U; 0 Other;

  Query Match             14.8%;  Score 11.4;  DB 1;  Length 16;
  Best Local Similarity   92.3%;  Pred. No. 1.4e+02;
  Matches   12;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         13 GTTCAAGTCGTTC 25
              |||| ||||||||
Db  :      14 GTTCCAGTCGTTC 2
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RESULT 150
AAS56734/c
ID   AAS56734 standard; RNA; 16 BP.
XX
AC   AAS56734;
XX
DT   16-JAN-2002  (first entry)
XX
DE   BR1 ribozyme sequence tag RNA #3.
XX
KW   Human; BRCA-1 regulator; ribozyme; BR1; RNA target recognition; probe;
KW   cytostatic; RNA cleavage; tumour suppressor; PCR primer; CHLR2; AF6; BR2;
KW   inhibitor dominant negative 4; breast basic conserved protein 1; BBC1;
KW   BR3; ID4; cancer; proliferative disorder; tumour proliferation; ss.
XX
OS   Homo sapiens.
XX
PN   WO200170982-A2.
XX
PD   27-SEP-2001.
XX
PF   23-MAR-2001; 2001WO-US009559.
XX
PR   23-MAR-2000; 2000US-00536058.
XX
PA   (IMMU-) IMMUSOL INC.
PA   (BEGE/) BEGER C.
XX
PI   Beger C,  Barber J,  Wong-Staal F;
XX
DR   WPI; 2001-611503/70.
XX
PT   Novel polypeptides that are the regulators of BRCA-1, useful for treating
PT   cancer and diagnosing the presence of neoplastic cells in biological
PT   sample.
XX
PS   Claim 12; Page 74; 97pp; English.
XX
CC   Sequences AAS56729-AAS56968 represent DNA encoding BRCA-1 regulators,
CC   ribozyme target recognition RNA sequences, DNA fragments encoding the RNA
CC   and primers used in the methods of the invention. Hybridisation of
CC   ribozymes to their targets results in cleavage of the RNA target. The
CC   ribozymes can be used to cleave regulators of the tumour suppressor BRCA-
CC   1, resulting in upregulation or downregulation of BRCA-1 in a cell. The
CC   mRNA targets include those encoding the BRCA-1 regulator BR1, inhibitor
CC   dominant negative 4 (ID4), breast basic conserved protein 1 (BBC1),
CC   CHLR2, AF6, BR2 and BR3. Regulation of BRCA-1 is useful for treating and
CC   diagnosing cancer and other proliferative disorders. The severity of an
CC   incidence of cancer can be lessened by regulating tumour proliferation
CC   through modulation of BRCA-1 expression. The sequences of the invention
CC   are useful in the development of anti-cancer drugs
XX
SQ   Sequence 16 BP; 6 A; 1 C; 7 G; 0 T; 2 U; 0 Other;

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 1.5e+02;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy         24 TCGCTTCGCTCACTCG 39
              || |||| |||||| |
Db         16 TCCCTTCTCTCACTAG 1


RESULT 151
ABS73993/c
ID   ABS73993 standard; DNA; 16 BP.
XX
AC   ABS73993;
XX
DT   09-DEC-2002  (first entry)
XX
DE   Interleukin-3 mutant-associated DNA sequence #18.
XX
KW   Interleukin-3; IL-3; ds; haematopoietic cell; haematopoietic disorder;
KW   acute myelogenous leukaemia; AML; bone marrow transplant; neutropaenia;
KW   thrombocytopaenia; aplastic anaemia; Chediak-Higashi syndrome;
KW   systemic lupus erythematosus; leukaemia; myelodysplastic syndrome;
KW   myelofibrosis; viral infection; microbial infection; parasitic infection;
KW   stem cell; immune deficiency; immune disorder; rheumatoid arthritis;
KW   leukopaenia.
XX
OS   Unidentified.
XX
PN   US6440407-B1.
XX
PD   27-AUG-2002.
XX
PF   09-DEC-1996;   96US-00764114.
XX
PR   24-NOV-1992;   92US-00981044.
PR   22-NOV-1993;   93WO-US011197.
PR   06-APR-1995;   95US-00411795.
XX
PA   (SEAR/) SEARLE G D.
XX
PI   Bauer SC,  Abrams MA,  Braford-Goldberg SR,  Caparon MH,  Easton AM;
PI   Klein BK,  Mckearn JP,  Olins PO,  Paik K,  Thomas JW;
XX
DR   WPI; 2002-711523/77.
XX
PT   Ex vivo expansion of stem cells e.g. hematopoietic stem cells for use in
PT   treating hematopoietic disorders, comprises culturing the cells in medium
PT   having human interleukin-3 mutant polypeptide and harvesting cultured
PT   cells.
XX
PS   Disclosure; Col 135; 215pp; English.
XX
CC   The invention relates to ex vivo expansion of stem cells, comprises
CC   culturing stem cells with a growth medium comprising a human interleukin-
CC   3 (IL-3) mutant polypeptide or a polypeptide comprising an N-terminal
CC   methionine residue, alanine residue or methionine-alanine di-peptide
CC   preceding the IL-3 sequence, and harvesting the cultured stem cells. Also
CC   include are enhancing the efficiency of the transduction of cultured stem
CC   cells by a heterologous gene, comprising: (a) culturing the stem cells
CC   with a growth medium comprising IL-3; (b) transducing DNA into cultured
CC   cells; and (c) harvesting the transduced cells; and treating a patient
CC   having a hematopoietic disorder comprising: (a) removing stem cells from
CC   a patient or a blood donor; (b) performing the method of the invention;
CC   and (c) transplanting the cultured stem cells into the patient. The
CC   method is useful for ex vivo expansion of stem cells. The two other new
CC   methods are useful for enhancing the efficiency of transduction of
CC   cultured stem cells by a heterologous gene, and treating a patient having
CC   a haematopoietic disorder, respectively The expanded hematopoietic cells
CC   are also useful in the treatment of cyclic neutropaenia, aplastic
CC   anaemia, thrombocytopaenia, idiopathic neutropaenia, Chediak-Higashi
CC   syndrome, systemic lupus erythematosus (SLE), leukaemia, myelodysplastic
CC   syndrome, leukopaenia and myelofibrosis, and also for treating various
CC   immune deficiencies caused as a result of viral infections or immune
CC   disorders e.g. rheumatoid arthritis. The expanded cells are further
CC   useful for preventing or treating bone marrow suppression or
CC   hematopoietic deficiencies which occur as a result of viral, microbial or
CC   parasitic infections. Treatment of leukopaenia with the expanded
CC   hematopoietic cells avoids undesirable side effects caused by treatment
CC   with current drugs. The present sequence is an IL-3-associated DNA
CC   sequence which is included in the sequence listing but is not referred to
CC   anywhere else in the specification
XX
SQ   Sequence 16 BP; 5 A; 3 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 1.5e+02;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1
```

```
RESULT 152
ABS74091/c
ID   ABS74091 standard; DNA; 16 BP.
XX
AC   ABS74091;
XX
DT   09-DEC-2002  (first entry)
XX
DE   Interleukin-3 mutant-associated DNA sequence #115.
XX
KW   Interleukin-3; IL-3; ds; haematopoietic cell; haematopoietic disorder;
KW   acute myelogenous leukaemia; AML; bone marrow transplant; neutropaenia;
KW   thrombocytopaenia; aplastic anaemia; Chediak-Higashi syndrome;
KW   systemic lupus erythematosus; leukaemia; myelodysplastic syndrome;
KW   myelofibrosis; viral infection; microbial infection; parasitic infection;
KW   stem cell; immune deficiency; immune disorder; rheumatoid arthritis;
KW   leukopaenia.
XX
OS   Unidentified.
XX
PN   US6440407-B1.
XX
PD   27-AUG-2002.
XX
PF   09-DEC-1996;   96US-00764114.
XX
PR   24-NOV-1992;   92US-00981044.
PR   22-NOV-1993;   93WO-US011197.
PR   06-APR-1995;   95US-00411795.
XX
PA   (SEAR/) SEARLE G D.
XX
PI   Bauer SC,  Abrams MA,  Braford-Goldberg SR,  Caparon MH,  Easton AM;
PI   Klein BK,  Mckearn JP,  Olins PO,  Paik K,  Thomas JW;
XX
DR   WPI; 2002-711523/77.
XX
PT   Ex vivo expansion of stem cells e.g. hematopoietic stem cells for use in
PT   treating hematopoietic disorders, comprises culturing the cells in medium
PT   having human interleukin-3 mutant polypeptide and harvesting cultured
PT   cells.
XX
PS   Disclosure; Col 233; 215pp; English.
XX
CC   The invention relates to ex vivo expansion of stem cells, comprises
CC   culturing stem cells with a growth medium comprising a human interleukin-
CC   3 (IL-3) mutant polypeptide or a polypeptide comprising an N-terminal
CC   methionine residue, alanine residue or methionine-alanine di-peptide
CC   preceding the IL-3 sequence, and harvesting the cultured stem cells. Also
CC   include are enhancing the efficiency of the transduction of cultured stem
CC   cells by a heterologous gene, comprising: (a) culturing the stem cells
CC   with a growth medium comprising IL-3; (b) transducing DNA into cultured
CC   cells; and (c) harvesting the transduced cells; and treating a patient
CC   having a hematopoietic disorder comprising: (a) removing stem cells from
CC   a patient or a blood donor; (b) performing the method of the invention;
CC   and (c) transplanting the cultured stem cells into the patient. The
CC   method is useful for ex vivo expansion of stem cells. The two other new
CC   methods are useful for enhancing the efficiency of transduction of
CC   cultured stem cells by a heterologous gene, and treating a patient having
CC   a haematopoietic disorder, respectively The expanded hematopoietic cells
CC   are also useful in the treatment of cyclic neutropaenia, aplastic
CC   anaemia, thrombocytopaenia, idiopathic neutropaenia, Chediak-Higashi
CC   syndrome, systemic lupus erythematosus (SLE), leukaemia, myelodysplastic
CC   syndrome, leukopaenia and myelofibrosis, and also for treating various
CC   immune deficiencies caused as a result of viral infections or immune
CC   disorders e.g. rheumatoid arthritis. The expanded cells are further
CC   useful for preventing or treating bone marrow suppression or
CC   hematopoietic deficiencies which occur as a result of viral, microbial or
CC   parasitic infections. Treatment of leukopaenia with the expanded
CC   hematopoietic cells avoids undesirable side effects caused by treatment
CC   with current drugs. The present sequence is an IL-3-associated DNA
CC   sequence which is included in the sequence listing but is not referred to
CC   anywhere else in the specification
XX
SQ   Sequence 16 BP; 5 A; 3 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 1.5e+02;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 153
ADC02569/c
ID   ADC02569 standard; DNA; 16 BP.
XX
AC   ADC02569;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Ex vivo stem-cell expansion related polynucleotide #17.
XX
KW   cytostatic; antianaemic; immunomodulator; immunostimulant;
KW   immunosuppressive; antiinflammatory; interleukin agonist 3;
KW   interleukin antagonist 3; gene therapy; ex vivo expansion of stem cell;
KW   modified human interleukin-3; cell proliferatiion;
KW   acute myelogenous leukaemia cell proliferation; TF-1 cell proliferation;
KW   methylcellulose assay; haematopoietic disorder; cancer;
KW   acute myelogenous leukaemia; B lymphoid cancer; leukopenia; neutropenia;
KW   aplastic anaemia; Chediak-Higashi's syndrome;
KW   systemic lupus erythematosus; myelodysplastic syndrome; myelofibrosis;
KW   bone marrow; blood cell activation; blood cell growth; ds.
XX
OS   Synthetic.
XX
PN   US6479261-B1.
XX
PD   12-NOV-2002.
XX
PF   15-NOV-1995;   95US-00559390.
XX
PR   24-NOV-1992;   92US-00981044.
PR   22-NOV-1993;   93WO-US011198.
PR   06-APR-1995;   95US-00411796.
XX
PA   (PHAA ) PHARMACIA CORP.
XX
PI   Bauer SC,  Abrams MA,  Braford-Goldberg SR,  Caparon MH,  Easton AM;
PI   Klein BK,  Mckearn JP,  Olins P,  Paik K,  Polazzi J,  Thomas JW;
XX
DR   WPI; 2003-655574/62.
XX
PT   Selective ex vivo expansion of stem cells, useful for treating a patient
PT   having hematopoietic disorder, e.g. leukemia, neutropenia or aplastic
PT   anemia, comprises using recombinant human interleukin-3 variant or mutant
PT   proteins.
XX
PS   Example 54; SEQ ID NO 29; 288pp; English.
XX
CC   The invention describes selective ex vivo expansion of stem cells
CC   comprising separating stem cells from other cells, culturing the cells
CC   with modified human interleukin-3 polypeptide with at least 3 times
CC   greater cell proliferative activity than native human interleukin-3 in at
CC   least one assay selected from the group of acute myelogenous leukaemia
CC   cell proliferation, TF-1 cell proliferation, and methylcellulose assay,
CC   and harvesting the cultured cells. The method is useful for selective ex
CC   vivo expansion of stem cells. The recombinant human interleukin-3 variant
CC   or mutant proteins are useful for treating a patient having a
CC   haematopoietic disorder, such as cancer (e.g. acute myelogenous leukaemia
CC   or certain types of B lymphoid cancers), leukopenia, neutropenia,
CC   aplastic anaemia, Chediak-Higashi's syndrome, systemic lupus
```

```
CC   erythematosus, myelodysplastic syndrome, or myelofibrosis. The
CC   interleukin-3 muteins are also useful as antagonists for producing
CC   antibodies used in immunoassay and immunotherapy protocols, or for
CC   stimulating bone marrow and blood cell activation and growth before
CC   infusion into patients. This sequence represents an ex vivo stem cell
CC   expansion method associated polynucleotide.
XX
SQ   Sequence 16 BP; 5 A; 3 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 1.5e+02;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 154
ADC02142/c
ID   ADC02142 standard; DNA; 16 BP.
XX
AC   ADC02142;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Ex vivo stem cell expansion related polynucleotide #116.
XX
KW   antianaemic; immunomodulator; dermatological; antiinflammatory;
KW   immunosuppressive; cytostatic; haemostatic; antirheumatic; antiarthritic;
KW   osteopathic; gene therapy; cell therapy; ex vivo expansion; stem cell;
KW   human interleukin-3 mutant; hIL-3 mutant; haematopoietic disorder;
KW   aplastic anaemia; Chediak-Higashi syndrome; systemic lupus erythematosus;
KW   leukaemia; myelodysplastic syndrome; myelofibrosis; neutropenia;
KW   thrombocytopenia; radiation; chemotherapy; bone marrow suppression;
KW   haematopoietic deficiency; azidothymidine; AZT; alkylating agent;
KW   chloramphenicol; rheumatoid arthritis; immune disorder; infection; ds.
XX
OS   Synthetic.
XX
PN   US2003103936-A1.
XX
PD   05-JUN-2003.
XX
PF   04-MAR-2002; 2002US-00090182.
XX
PR   24-NOV-1992;   92US-00981044.
PR   22-NOV-1993;   93WO-US011197.
PR   06-APR-1995;   95US-00411795.
PR   09-DEC-1996;   96US-00764114.
XX
PA   (BAUE/) BAUER S C.
PA   (ABRA/) ABRAMS M A.
PA   (BRAF/) BRAFORD-GOLDBERG S R.
PA   (CAPA/) CAPARON M H.
PA   (EAST/) EASTON A M.
PA   (KLEI/) KLEIN B K.
PA   (MCKE/) MCKEARN J P.
PA   (OLIN/) OLINS P O.
PA   (PAIK/) PAIK K.
PA   (THOM/) THOMAS J W.
XX
PI   Bauer SC,  Abrams MA,  Braford-Goldberg SR,  Caparon MH,  Easton AM;
PI   Klein BK,  Mckearn JP,  Olins PO,  Paik K,  Thomas JW;
XX
DR   WPI; 2003-678181/64.
XX
PT   Ex vivo expansion of stem cells (e.g. hematopoietic cells) for gene
PT   therapy, e.g. using expanded stem cells for treating thrombocytopenia, by
PT   culturing the cells in a growth medium containing a variant or mutant of
PT   human interleukin-3.
XX
PS   Disclosure; SEQ ID NO 168; 242pp; English.
XX
CC   The invention describes ex vivo expansion of stem cells comprising
CC   culturing the stem cells with a growth medium containing a human
CC   interleukin-3 (hIL-3) mutant polypeptide. The hIL-3 mutant polypeptide
CC   has a 133, 111, 133 or 111 amino acid sequence (designated hIL-3a, hIL-
CC   3b, hIL-3c and hIL-3d, respectively), given in the specification. The
CC   method is useful for ex vivo expansion of stem cells for gene therapy.
CC   The expanded stem cells are useful for treating patients with a
CC   haematopoietic disorder e.g. aplastic anaemia, Chediak-Higashi syndrome,
CC   systemic lupus erythematosus, leukaemia, myelodysplastic syndrome,
CC   myelofibrosis, neutropenia or thrombocytopenia. The method is
CC   particularly useful for ex vivo expansion of haematopoietic cells for use
CC   in: (a) restoring haematopoietic cells to normal amounts in those cases
CC   where the number of cells has been reduced due to diseases or to
CC   therapeutic treatments (e.g. radiation or chemotherapy); (b) preventing
CC   or treating bone marrow suppression or haematopoietic deficiencies, which
CC   occur in patients treated with e.g. azidothymidine (AZT), alkylating
CC   agents or chloramphenicol; or (c) treating rheumatoid arthritis or other
CC   immune disorders resulting from viral, microbial or parasitic infection.
CC   This sequence represents an ex vivo stem cell expansion method associated
CC   polynucleotide.
XX
SQ   Sequence 16 BP; 5 A; 3 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 1.5e+02;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 155
ADC02003/c
ID   ADC02003 standard; DNA; 16 BP.
XX
AC   ADC02003;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Ex vivo stem cell expansion related polynucleotide #18.
XX
KW   antianaemic; immunomodulator; dermatological; antiinflammatory;
KW   immunosuppressive; cytostatic; haemostatic; antirheumatic; antiarthritic;
KW   osteopathic; gene therapy; cell therapy; ex vivo expansion; stem cell;
KW   human interleukin-3 mutant; hIL-3 mutant; haematopoietic disorder;
KW   aplastic anaemia; Chediak-Higashi syndrome; systemic lupus erythematosus;
KW   leukaemia; myelodysplastic syndrome; myelofibrosis; neutropenia;
KW   thrombocytopenia; radiation; chemotherapy; bone marrow suppression;
KW   haematopoietic deficiency; azidothymidine; AZT; alkylating agent;
KW   chloramphenicol; rheumatoid arthritis; immune disorder; infection; ds.
XX
OS   Synthetic.
XX
PN   US2003103936-A1.
XX
PD   05-JUN-2003.
XX
PF   04-MAR-2002; 2002US-00090182.
XX
PR   24-NOV-1992;   92US-00981044.
PR   22-NOV-1993;   93WO-US011197.
PR   06-APR-1995;   95US-00411795.
PR   09-DEC-1996;   96US-00764114.
XX
PA   (BAUE/) BAUER S C.
PA   (ABRA/) ABRAMS M A.
PA   (BRAF/) BRAFORD-GOLDBERG S R.
PA   (CAPA/) CAPARON M H.
PA   (EAST/) EASTON A M.
PA   (KLEI/) KLEIN B K.
PA   (MCKE/) MCKEARN J P.
```

```
PA   (OLIN/) OLINS P O.
PA   (PAIK/) PAIK K.
PA   (THOM/) THOMAS J W.
XX
PI   Bauer SC, Abrams MA, Braford-Goldberg SR, Caparon MH, Easton AM;
PI   Klein BK, Mckearn JP, Olins PO, Paik K, Thomas JW;
XX
DR   WPI; 2003-678181/64.
XX
PT   Ex vivo expansion of stem cells (e.g. hematopoietic cells) for gene
PT   therapy, e.g. using expanded stem cells for treating thrombocytopenia, by
PT   culturing the cells in a growth medium containing a variant or mutant of
PT   human interleukin-3.
XX
PS   Disclosure; SEQ ID NO 29; 242pp; English.
XX
CC   The invention describes ex vivo expansion of stem cells comprising
CC   culturing the stem cells with a growth medium containing a human
CC   interleukin-3 (hIL-3) mutant polypeptide. The hIL-3 mutant polypeptide
CC   has a 133, 111, 133 or 111 amino acid sequence (designated hIL-3a, hIL-
CC   3b, hIL-3c and hIL-3d, respectively), given in the specification. The
CC   method is useful for ex vivo expansion of stem cells for gene therapy.
CC   The expanded stem cells are useful for treating patients with a
CC   haematopoietic disorder e.g. aplastic anaemia, Chediak-Higashi syndrome,
CC   systemic lupus erythematosus, leukaemia, myelodysplastic syndrome,
CC   myelofibrosis, neutropenia or thrombocytopenia. The method is
CC   particularly useful for ex vivo expansion of haematopoietic cells for use
CC   in: (a) restoring haematopoietic cells to normal amounts in those cases
CC   where the number of cells has been reduced due to diseases or to
CC   therapeutic treatments (e.g. radiation or chemotherapy); (b) preventing
CC   or treating bone marrow suppression or haematopoietic deficiencies, which
CC   occur in patients treated with e.g. azidothymidine (AZT), alkylating
CC   agents or chloramphenicol; or (c) treating rheumatoid arthritis or other
CC   immune disorders resulting from viral, microbial or parasitic infection.
CC   This sequence represents an ex vivo stem cell expansion method associated
CC   polynucleotide.
XX
SQ   Sequence 16 BP; 5 A; 3 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 1.5e+02;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 156
ADI58244/c
ID   ADI58244 standard; DNA; 16 BP.
XX
AC   ADI58244;
XX
DT   22-APR-2004  (first entry)
XX
DE   Human interleukin 3 expressing vector related DNA seq id 29.
XX
KW   immunostimulant; antianemic; immunomodulator; antiinflammatory;
KW   dermatological; immunosuppressive; cytostatic; neuroprotective;
KW   gene therapy; interleukin-agonist-3; cultured stem cell;
KW   ex-vivo cell expansion; interleukin-3 mutant; aplastic anaemia;
KW   cyclic neutropenia; idiopathic neutropenia; Chediak-Higashi syndrome;
KW   systemic lupus erythematosus; leukaemia; myelodysplastic syndrome;
KW   myelofibrosis; interleukin 3; IL-3; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   US2004018618-A1.
XX
PD   29-JAN-2004.
XX
PF   19-JUN-2002; 2002US-00179940.
XX
PR   24-NOV-1992;   92US-00981044.
PR   22-NOV-1993;   93WO-US011198.
PR   06-APR-1995;   95US-00411796.
PR   15-NOV-1995;   95US-00559390.
XX
PA   (BAUE/) BAUER S C.
PA   (ABRA/) ABRAMS M A.
PA   (BRAF/) BRAFORD-GOLDBERG S R.
PA   (CAPA/) CAPARON M H.
PA   (EAST/) EASTON A M.
PA   (KLEI/) KLEIN B K.
PA   (MCKE/) MCKEARN J P.
PA   (OLIN/) OLINS P.
PA   (PAIK/) PAIK K.
PA   (POLA/) POLAZZI J.
PA   (THOM/) THOMAS J W.
XX
PI   Bauer SC, Abrams MA, Braford-Goldberg SR, Caparon MH, Easton AM;
PI   Klein BK, Mckearn JP, Olins P, Paik K, Polazzi J, Thomas JW;
XX
DR   WPI; 2004-122043/12.
XX
PT   Culturing stem cells using a recombinant human interleukin-3 mutant
PT   polypeptide, useful for treating aplastic anemia, neutropenia, Chediak-
PT   Higashi syndrome, systemic lupus erythematosus, leukemia and
PT   myelodysplastic syndrome.
XX
PS   Example 54; SEQ ID NO 29; 328pp; English.
XX
CC   The invention describes cultured stem cells obtained by a method for
CC   selective ex-vivo expansion of stem cells comprising separating stem
CC   cells from other cells, culturing the separated stem cells with a
CC   selected media which comprises a human interleukin-3 mutant polypeptide
CC   comprising defined amino acid sequences SEQ ID NO 15 or 19 given in the
CC   specification, and harvesting the cultured cells. The methods and
CC   compositions of the present invention are useful for treating aplastic
CC   anaemia, cyclic neutropenia, idiopathic neutropenia, Chediak-Higashi
CC   syndrome, systemic lupus erythematosus, leukaemia, myelodysplastic
CC   syndrome and myelofibrosis. This sequence represents an oligonucleotide
CC   used in the construction of a vector pMON 5978 comprising human
CC   interleukin 3 (IL-3).
XX
SQ   Sequence 16 BP; 5 A; 3 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             14.5%;  Score 11.2;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 1.5e+02;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACTGGTTCA 17
              ||| |||  |||||||
Db         16 CCTGACATATGGTTCA 1


RESULT 157
ABI30192
ID   ABI30192 standard; DNA; 12 BP.
XX
AC   ABI30192;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 330165 for detecting SNP TSC0035363.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
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PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 330165; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 6 A; 3 C; 1 G; 2 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.1e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         62 TAACCAAACGT 72
              ||||||||||| |
Db          1 TAACCAAACGT 11


RESULT 158
ABI02556/c
ID   ABI02556 standard; DNA; 12 BP.
XX
AC   ABI02556;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 302529 for detecting SNP TSC0020049.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 302529; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 2 A; 1 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.1e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         62 TAACCAAACGT 72
              ||||||||||| |
Db         12 TAACCAAACGT 2


RESULT 159
ABI26471
ID   ABI26471 standard; DNA; 12 BP.
XX
AC   ABI26471;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 326444 for detecting SNP TSC0033078.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 326444; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
```

```
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 6 A; 4 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.1e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 CCTTAACCAAA 69
              ||||||||||
Db          1 CCTTAACCAAA 11


RESULT 160
ABI09738/c
ID   ABI09738 standard; DNA; 12 BP.
XX
AC   ABI09738;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 309711 for detecting SNP TSC0023629.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 309711; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 3 A; 1 C; 3 G; 5 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.1e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACG 71
              ||||||||||
Db         11 TTAACCAAACG 1


RESULT 161
ABI19204/c
ID   ABI19204 standard; DNA; 12 BP.
XX
AC   ABI19204;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 319177 for detecting SNP TSC0029109.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 319177; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 2 A; 0 C; 4 G; 6 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.1e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAACT 11
              ||||||||||
Db         12 ACCTAACAACT 2


RESULT 162
ABI64792/c
ID   ABI64792 standard; DNA; 12 BP.
XX
AC   ABI64792;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 364765 for detecting SNP TSC0054705.
XX
```

```
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 364765; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 2 A; 1 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.1e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACG 71
              ||||||||||| 
Db         11 TTAACCAAACG 1


RESULT 163
ABH84855
ID   ABH84855 standard; DNA; 12 BP.
XX
AC   ABH84855;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 284848 for detecting SNP TSC0012028.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 284848; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 5 A; 3 C; 1 G; 3 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.1e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACG 71
              ||||||||||| 
Db          2 TTAACCAAACG 12


RESULT 164
ABH17153
ID   ABH17153 standard; DNA; 13 BP.
XX
AC   ABH17153;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 217130 for detecting SNP TSC0052778.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 217130; 29pp + Sequence Listing; German.
XX
```

```
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 5 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 CCTTAACCAAA 69
              ||||||||||
Db          1 CCTTAACCAAA 11


RESULT 165
ABH51662/c
ID   ABH51662 standard; DNA; 13 BP.
XX
AC   ABH51662;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 251639 for detecting SNP TSC0061400.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 251639; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 6 G; 5 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCAA 68
              ||||||||||
Db         11 CCCTTAACCAA 1


RESULT 166
ABC39244/c
ID   ABC39244 standard; DNA; 13 BP.
XX
AC   ABC39244;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 39261 for detecting SNP TSC0012030.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 39261; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 1 C; 4 G; 6 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACG 71
              ||||||||||
Db         13 TTAACCAAACG 3


RESULT 167
ABC39245
```

```
ID   ABC39245 standard; DNA; 13 BP.
XX
AC   ABC39245;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 39262 for detecting SNP TSC0012030.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 39262; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 4 C; 1 G; 2 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACG 71
              ||||||||||| 
Db          1 TTAACCAAACG 11


RESULT 168
ABC39246/c
ID   ABC39246 standard; DNA; 13 BP.
XX
AC   ABC39246;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 39263 for detecting SNP TSC0012030.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 39263; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 2 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACG 71
              ||||||||||| 
Db         13 TTAACCAAACG 3


RESULT 169
ABF60143
ID   ABF60143 standard; DNA; 13 BP.
XX
AC   ABF60143;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 160140 for detecting SNP TSC0040323.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
```

```
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 160140; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 5 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match           14.3%;  Score 11;  DB 1;  Length 13;
  Best Local Similarity  100.0%;  Pred. No. 1.2e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAAC 70
              ||||||||||
Db          1 CTTAACCAAAC 11


RESULT 170
ABC29924/c
ID   ABC29924 standard; DNA; 13 BP.
XX
AC   ABC29924;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 29941 for detecting SNP TSC0009018.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 29941; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 4 G; 6 T; 0 U; 0 Other;

  Query Match           14.3%;  Score 11;  DB 1;  Length 13;
  Best Local Similarity  100.0%;  Pred. No. 1.2e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 CCTTAACCAAA 69
              ||||||||||
Db         13 CCTTAACCAAA 3


RESULT 171
ABF31679
ID   ABF31679 standard; DNA; 13 BP.
XX
AC   ABF31679;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 131676 for detecting SNP TSC0032863.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 131676; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 5 C; 0 G; 2 T; 0 U; 1 Other;

  Query Match           14.3%;  Score 11;  DB 1;  Length 13;
  Best Local Similarity  100.0%;  Pred. No. 1.2e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
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```
Qy          60 CTTAACCAAAC 70
               ||||||||||
Db           2 CTTAACCAAAC 12
```

RESULT 172
ABH17152/c
ID ABH17152 standard; DNA; 13 BP.
XX
AC ABH17152;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 217129 for detecting SNP TSC0052778.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 217129; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation. ABC00010
CC -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC represent the oligomers described in the invention. NOTE: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 13 BP; 2 A; 0 C; 5 G; 6 T; 0 U; 0 Other;

```
  Query Match             14.3%;  Score 11;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          59 CCTTAACCAAA 69
               ||||||||||
Db          13 CCTTAACCAAA 3
```

RESULT 173
ABH51663
ID ABH51663 standard; DNA; 13 BP.
XX
AC ABH51663;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 251640 for detecting SNP TSC0061400.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 251640; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation. ABC00010
CC -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC represent the oligomers described in the invention. NOTE: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 13 BP; 5 A; 6 C; 0 G; 2 T; 0 U; 0 Other;

```
  Query Match             14.3%;  Score 11;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          58 CCCTTAACCAA 68
               ||||||||||
Db           3 CCCTTAACCAA 13
```

RESULT 174
ABC39247
ID ABC39247 standard; DNA; 13 BP.
XX
AC ABC39247;
XX
DT 20-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 39264 for detecting SNP TSC0012030.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX

```
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 39264; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 4 C; 2 G; 2 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACG 71
              ||||||||||
Db          1 TTAACCAAACG 11


RESULT 175
ABF31678/c
ID   ABF31678 standard; DNA; 13 BP.
XX
AC   ABF31678;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 131675 for detecting SNP TSC0032863.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 131675; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 5 G; 5 T; 0 U; 1 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAAC 70
              ||||||||||
Db         12 CTTAACCAAAC 2


RESULT 176
ABH44354/c
ID   ABH44354 standard; DNA; 13 BP.
XX
AC   ABH44354;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 244331 for detecting SNP TSC0059632.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 244331; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
```

```
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 1 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         64 ACCAAACGTTA 74
              ||||||||||
Db         13 ACCAAACGTTA 3


RESULT 177
ABC29925
ID   ABC29925 standard; DNA; 13 BP.
XX
AC   ABC29925;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 29942 for detecting SNP TSC0009018.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 29942; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 4 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 CCTTAACCAAA 69
              ||||||||||
Db          1 CCTTAACCAAA 11


RESULT 178
ABH44355
ID   ABH44355 standard; DNA; 13 BP.
XX
AC   ABH44355;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 244332 for detecting SNP TSC0059632.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 244332; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 3 C; 1 G; 3 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         64 ACCAAACGTTA 74
              ||||||||||
Db          1 ACCAAACGTTA 11


RESULT 179
ABF60142/c
ID   ABF60142 standard; DNA; 13 BP.
XX
AC   ABF60142;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 160139 for detecting SNP TSC0040323.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
```

```
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 160139; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 5 G; 6 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAAC 70
               ||||||||||
Db         13 CTTAACCAAAC 3


RESULT 180
ABH49076/c
ID   ABH49076 standard; DNA; 13 BP.
XX
AC   ABH49076;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 249053 for detecting SNP TSC0060842.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 249053; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAAC 70
               ||||||||||
Db         13 CTTAACCAAAC 3


RESULT 181
ABH49077
ID   ABH49077 standard; DNA; 13 BP.
XX
AC   ABH49077;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 249054 for detecting SNP TSC0060842.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 249054; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
```

```
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 5 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAAC 70
              ||||||||||| 
Db          1 CTTAACCAAAC 11


RESULT 182
AAT17240
ID   AAT17240 standard; DNA; 15 BP.
XX
AC   AAT17240;
XX
DT   30-MAY-1996  (first entry)
XX
DE   Epimorphin upstream primer.
XX
KW   Epimorphin; human; mouse; wound; burn; epithelial tissue; diagnosis;
KW   treatment; morphogenetic abnormality; cosmetic; hair growth stimulator;
KW   PCR; amplification; ss.
XX
OS   Synthetic.
XX
PN   EP698666-A2.
XX
PD   28-FEB-1996.
XX
PF   20-JUN-1995;   95EP-00304270.
XX
PR   21-JUN-1994;   94JP-00162874.
PR   31-MAR-1995;   95JP-00099979.
PR   31-MAR-1995;   95JP-00099980.
XX
PA   (SUME ) SUMITOMO ELECTRIC IND CO.
XX
PI   Hirai Y,  Koshida S,  Oka Y;
XX
DR   WPI; 1996-118213/13.
XX
PT   Novel polypeptide containing an epimorphin functional domain - has
PT   possible benefits in epithelial tissue treatments, e.g. burns and for
PT   artificial organs.
XX
PS   Example 7; Page 13; 62pp; English.
XX
CC   The primers given in AAT17240 and AAT17241 are used in RT-PCR for the
CC   amplification of epimorphin cDNA
XX
SQ   Sequence 15 BP; 2 A; 4 C; 7 G; 2 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 1.5e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         38 CGGGACCGGCT 48
              ||||||||||| 
Db          4 CGGGACCGGCT 14


RESULT 183
AAT62415
ID   AAT62415 standard; cDNA; 15 BP.
XX
AC   AAT62415;
XX
DT   02-JUL-1997  (first entry)
XX
DE   Epimorphin coding sequence 5' primer.
XX
KW   Human; mouse; epimorphin; coiled-coil region; functional domain; tissue;
KW   hydrophobic; deletion; truncation; regulation; morphogenesis; epithelium;
KW   artificial organ; cosmetic; hair tonic; primer; PCR; amplification;
KW   polymerase chain reaction; ss.
XX
OS   Synthetic.
XX
PN   JP09065885-A.
XX
PD   11-MAR-1997.
XX
PF   29-MAR-1996;   96JP-00099684.
XX
PR   31-MAR-1995;   95JP-00099980.
PR   19-JUN-1995;   95JP-00175540.
XX
PA   (SUME ) SUMITOMO ELECTRIC IND CO.
XX
DR   WPI; 1997-220419/20.
XX
PT   Modified epimorphin and related DNA - useful e.g. for treatment of
PT   tissues or in artificial organs, or as an ingredient in cosmetics.
XX
PS   Example 1; Page 7; 18pp; Japanese.
XX
CC   The invention relates to novel human (AAW14257-9) or mouse (AAW14260-2)
CC   epimorphin proteins with replacements, deletions or substitutions in the
CC   amino acid sequence. The new epimorphin protein consists of: (a) an N-
CC   terminal coiled-coil region; (b) a functional domain in the middle; and
CC   (c) a C-terminal coiled-coil region. A hydrophobic region in the C-
CC   terminal has been deleted and at least some amino acids have been deleted
CC   from the terminals of coiled coil regions (a) and/or (c). The primers
CC   AAT62415-6 were used to amplify the coding sequences for the human
CC   (AAT62410) and mouse (AAT62414) epimorphin proteins, which were
CC   subsequently used to generate the truncated proteins above. Epimorphin is
CC   a protein which regulates morphogenesis of epithelial tissues. It can be
CC   used for treatment of tissues or used directly in artificial organs or as
CC   an ingredient in cosmetics, hair tonic, etc
XX
SQ   Sequence 15 BP; 2 A; 4 C; 7 G; 2 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 1.5e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         38 CGGGACCGGCT 48
              ||||||||||| 
Db          4 CGGGACCGGCT 14


RESULT 184
AAZ62722
ID   AAZ62722 standard; RNA; 15 BP.
XX
AC   AAZ62722;
XX
DT   28-MAR-2000  (first entry)
XX
DE   Substrate for HH ribozyme HCV-6111 which cleaves HCV RNA at nt. 6111.
XX
KW   Enzymatic nucleic acid; hammerhead ribozyme; virus replication; cleavage;
KW   cirrhosis; liver failure; hepatocellular carcinoma; interferon; cancer;
```

```
KW   autoimmune disease; ss.
XX
OS   Hepatitis C virus.
XX
PN   WO9955847-A2.
XX
PD   04-NOV-1999.
XX
PF   26-APR-1999;   99WO-US009027.
XX
PR   27-APR-1998;   98US-0083217P.
PR   18-SEP-1998;   98US-0100842P.
PR   25-FEB-1999;   99US-00257608.
PR   23-MAR-1999;   99US-00274553.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L, Mcswiggen JA, Roberts E, Pavco PA, Macejak D;
XX
DR   WPI; 2000-062023/05.
XX
PT   Novel ribozymes for the treatment of diseases and conditions related to
PT   hepatitis C infection.
XX
PS   Claim 1; Page 61; 123pp; English.
XX
CC   The present sequence represents the preferred target sequence of an
CC   enzymatic nucleic acid, especially a hammerhead ribozyme, which cleaves
CC   the Hepatitis C virus (HCV) RNA sequence at the base position given in
CC   the descriptor line. The HCV sequence was screened for optimal ribozyme
CC   target sites using a computer folding algorithm and regions of the mRNA
CC   which did not form secondary folding structures and contained potential
CC   ribozyme cleavage sites were identified. Ribozymes were synthesised to
CC   target these sites and their activities optimised by either varying the
CC   length of the binding arms or by modification to prevent degradation by
CC   nucleases. The ribozymes of the invention inhibit gene expression and/or
CC   viral replication, and are used to treat diseases associated with
CC   Hepatitis C virus (HCV) infection, e.g. cirrhosis, liver failure and
CC   hepatocellular carcinoma. The ribozymes may be used in combination with
CC   interferon to treat HCV infection, other infectious diseases, autoimmune
CC   diseases, and cancer
XX
SQ   Sequence 15 BP; 0 A; 4 C; 7 G; 0 T; 4 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 15;
  Best Local Similarity   63.6%;  Pred. No. 1.5e+02;
  Matches    7;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         22 GTTCGCTTCGC 32
              |::|||::|||
Db          1 GUUCGCUUCGC 11


RESULT 185
AAZ62720
ID   AAZ62720 standard; RNA; 15 BP.
XX
AC   AAZ62720;
XX
DT   28-MAR-2000  (first entry)
XX
DE   Substrate for HH ribozyme HCV-6106 which cleaves HCV RNA at nt. 6106.
XX
KW   Enzymatic nucleic acid; hammerhead ribozyme; virus replication; cleavage;
KW   cirrhosis; liver failure; hepatocellular carcinoma; interferon; cancer;
KW   autoimmune disease; ss.
XX
OS   Hepatitis C virus.
XX
PN   WO9955847-A2.
XX
PD   04-NOV-1999.
XX
PF   26-APR-1999;   99WO-US009027.
XX
PR   27-APR-1998;   98US-0083217P.
PR   18-SEP-1998;   98US-0100842P.
PR   25-FEB-1999;   99US-00257608.
PR   23-MAR-1999;   99US-00274553.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L, Mcswiggen JA, Roberts E, Pavco PA, Macejak D;
XX
DR   WPI; 2000-062023/05.
XX
PT   Novel ribozymes for the treatment of diseases and conditions related to
PT   hepatitis C infection.
XX
PS   Claim 1; Page 61; 123pp; English.
XX
CC   The present sequence represents the preferred target sequence of an
CC   enzymatic nucleic acid, especially a hammerhead ribozyme, which cleaves
CC   the Hepatitis C virus (HCV) RNA sequence at the base position given in
CC   the descriptor line. The HCV sequence was screened for optimal ribozyme
CC   target sites using a computer folding algorithm and regions of the mRNA
CC   which did not form secondary folding structures and contained potential
CC   ribozyme cleavage sites were identified. Ribozymes were synthesised to
CC   target these sites and their activities optimised by either varying the
CC   length of the binding arms or by modification to prevent degradation by
CC   nucleases. The ribozymes of the invention inhibit gene expression and/or
CC   viral replication, and are used to treat diseases associated with
CC   Hepatitis C virus (HCV) infection, e.g. cirrhosis, liver failure and
CC   hepatocellular carcinoma. The ribozymes may be used in combination with
CC   interferon to treat HCV infection, other infectious diseases, autoimmune
CC   diseases, and cancer
XX
SQ   Sequence 15 BP; 2 A; 4 C; 4 G; 0 T; 5 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 15;
  Best Local Similarity   63.6%;  Pred. No. 1.5e+02;
  Matches    7;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCG 31
              ||::|||::||
Db          5 CGUUCGCUUCG 15


RESULT 186
ABX00571
ID   ABX00571 standard; RNA; 15 BP.
XX
AC   ABX00571;
XX
DT   23-DEC-2002  (first entry)
XX
DE   Hepatitis C virus substrate #353 for HCV hammerhead ribozyme #353.
XX
KW   Enzymatic nucleic acid; RNA cleavage; Hepatitis C virus infection;
KW   HCV ribozyme; HCV expression; HCV replication; cirrhosis; virucide;
KW   liver failure; hepatocellular carcinoma; HCV infection; drug therapy;
KW   type I interferon; interferon alpha; interferon beta; cytostatic;
KW   interferon gamma; consensus interferon; hepatotropic; antiinflammatory;
KW   substrate; hammerhead ribozyme; HH ribozyme; ss.
XX
OS   Hepatitis C virus.
XX
PN   US2002082225-A1.
XX
PD   27-JUN-2002.
XX
PF   23-MAR-1999;   99US-00274553.
XX
PR   23-MAR-1999;   99US-00274553.
XX
PA   (BLAT/) BLATT L.
```

```
PA   (MCSW/) MCSWIGGEN J A.
PA   (ROBE/) ROBERTS B.
PA   (PAVC/) PAVCO P A.
PA   (MACE/) MACEJACK D.
XX
PI   Blatt L,  Mcswiggen JA,  Roberts B,  Pavco PA,  Macejack D;
XX
DR   WPI; 2002-617759/66.
XX
PT   New ribozymes targeting RNA derived from hepatitis C virus inhibit viral
PT   replication and are useful to treat hepatitis C virus infections and
PT   cirrhosis, liver failure or hepatocellular carcinoma.
XX
PS   Claim 1; Page 31; 80pp; English.
XX
CC   The present invention relates to enzymatic nucleic acids which
CC   specifically cleave RNA derived from Hepatitis C virus (HCV). The
CC   enzymatic nucleic acid or ribozyme is in a hammerhead (HH) or hairpin
CC   (HP) motif where the binding arms comprise sequences complementary to one
CC   of the substrate sequences defined in the specification. The HCV
CC   ribozymes are useful for modulating the expression and/or replication of
CC   HCV. They can be used to treat cirrhosis, liver failure and/or
CC   hepatocellular carcinoma. The HCV ribozymes are also useful for treating
CC   a condition associated with HCV infection in conjunction with one or more
CC   other drug therapies, particularly type I interferon, especially
CC   interferon alpha, beta or gamma or consensus interferon. The present
CC   sequence represents a substrate for a HCV hammerhead (HH) ribozyme. Note:
CC   Some of the sequence data for this patent did not form part of the
CC   printed specification. The complete sequence data for this patent was
CC   obtained in electronic format directly from the USPTO web site at
CC   seqdata.uspto.gov/psipsDIDEntry.html
XX
SQ   Sequence 15 BP; 2 A; 4 C; 4 G; 0 T; 5 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 15;
  Best Local Similarity   63.6%;  Pred. No. 1.5e+02;
  Matches    7;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         21 CGTTCGCTTCG 31
              ||::|||::||
Db          5 CGUUCGCUUCG 15


RESULT 187
ABX00573
ID   ABX00573 standard; RNA; 15 BP.
XX
AC   ABX00573;
XX
DT   23-DEC-2002  (first entry)
XX
DE   Hepatitis C virus substrate #355 for HCV hammerhead ribozyme #355.
XX
KW   Enzymatic nucleic acid; RNA cleavage; Hepatitis C virus infection;
KW   HCV ribozyme; HCV expression; HCV replication; cirrhosis; virucide;
KW   liver failure; hepatocellular carcinoma; HCV infection; drug therapy;
KW   type I interferon; interferon alpha; interferon beta; cytostatic;
KW   interferon gamma; consensus interferon; hepatotropic; antiinflammatory;
KW   substrate; hammerhead ribozyme; HH ribozyme; ss.
XX
OS   Hepatitis C virus.
XX
PN   US2002082225-A1.
XX
PD   27-JUN-2002.
XX
PF   23-MAR-1999;   99US-00274553.
XX
PR   23-MAR-1999;   99US-00274553.
XX
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J A.
PA   (ROBE/) ROBERTS B.
PA   (PAVC/) PAVCO P A.
PA   (MACE/) MACEJACK D.
XX
PI   Blatt L,  Mcswiggen JA,  Roberts B,  Pavco PA,  Macejack D;
XX
DR   WPI; 2002-617759/66.
XX
PT   New ribozymes targeting RNA derived from hepatitis C virus inhibit viral
PT   replication and are useful to treat hepatitis C virus infections and
PT   cirrhosis, liver failure or hepatocellular carcinoma.
XX
PS   Claim 1; Page 31; 80pp; English.
XX
CC   The present invention relates to enzymatic nucleic acids which
CC   specifically cleave RNA derived from Hepatitis C virus (HCV). The
CC   enzymatic nucleic acid or ribozyme is in a hammerhead (HH) or hairpin
CC   (HP) motif where the binding arms comprise sequences complementary to one
CC   of the substrate sequences defined in the specification. The HCV
CC   ribozymes are useful for modulating the expression and/or replication of
CC   HCV. They can be used to treat cirrhosis, liver failure and/or
CC   hepatocellular carcinoma. The HCV ribozymes are also useful for treating
CC   a condition associated with HCV infection in conjunction with one or more
CC   other drug therapies, particularly type I interferon, especially
CC   interferon alpha, beta or gamma or consensus interferon. The present
CC   sequence represents a substrate for a HCV hammerhead (HH) ribozyme. Note:
CC   Some of the sequence data for this patent did not form part of the
CC   printed specification. The complete sequence data for this patent was
CC   obtained in electronic format directly from the USPTO web site at
CC   seqdata.uspto.gov/psipsDIDEntry.html
XX
SQ   Sequence 15 BP; 0 A; 4 C; 7 G; 0 T; 4 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 15;
  Best Local Similarity   63.6%;  Pred. No. 1.5e+02;
  Matches    7;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         22 GTTCGCTTCGC 32
              |::|||::|||
Db          1 GUUCGCUUCGC 11


RESULT 188
AAZ44950/c
ID   AAZ44950 standard; DNA; 76 BP.
XX
AC   AAZ44950;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #57.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
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PS   Claim 7a; Page 60; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 76 BP; 16 A; 25 C; 18 G; 17 T; 0 U; 0 Other;

  Query Match             14.3%;  Score 11;  DB 1;  Length 76;
  Best Local Similarity   49.2%;  Pred. No. 1.7e+02;
  Matches   29;  Conservative    0;  Mismatches   30;  Indels    0;  Gaps    0;

Qy         17 AAGTCGTTCGCTTCGCTCACTCGGGACCGGCTAAAGCCGGCCCCTTAACCAAACGTTAG 75
Db         61 AAGGGGCCGGCTTCGCCGGTCCCGAGTGAGCGAAGCGAACGACTTGAGCCAATTGTTAG 3


RESULT 189
AAT50334/c
ID   AAT50334 standard; RNA; 15 BP.
XX
AC   AAT50334;
XX
DT   11-MAR-1997  (first entry)
XX
DE   Rabbit CETP HH ribozyme target sequence #1787.
XX
KW   Hammerhead ribozyme; cholesterol ester transfer protein; mRNA cleavage;
KW   neutral lipid transfer; plasma lipoprotein; atherosclerosis; atherectomy;
KW   reverse cholesterol transport; high density lipoprotein; therapy; CETP;
KW   familial hypercholesterolaemia; dyslipidaemia; hypoalphalipoproteinaemia;
KW   peripheral vascular disease; hyperbetalipoproteinaemia; RCT; inhibitor;
KW   angioplastic restenosis; low density lipoprotein; diabetes; HDL; rabbit;
KW   LDL; ss.
XX
OS   Oryctolagus cuniculus.
XX
PN   WO9620279-A1.
XX
PD   04-JUL-1996.
XX
PF   11-DEC-1995;   95WO-US016000.
XX
PR   23-DEC-1994;   94US-00363240.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Couture L,  Stinchcomb D,  Mcswiggen J,  Bisgaier C,  Pape M;
XX
DR   WPI; 1996-321852/32.
XX
PT   New ribozyme(s) for cleaving cholesterol ester transfer protein mRNA -
PT   useful for preventing or treating initial development, progression or
PT   regression of vascular diseases, esp. familial hypercholesterolaemia.
XX
PS   Claim 4; Page 43; 72pp; English.
XX
CC   AAT50138-T50359 represent target sequences for the rabbit cholesterol
CC   ester transfer protein (CETP) Hammerhead (HH) ribozymes (see AAT50360-
CC   T50546). CETP is a 74 kD glycoprotein that facilitates neutral lipid
CC   transfer between plasma lipoproteins. The numbering of the targets refers
CC   to the position of the cleavage site in full length CETP. The ribozyme
CC   then binds to 5 nucleotides either side of this site. The ribozymes are
CC   able to cleave mRNA from the gene encoding CETP, thereby blocking
CC   synthesis and/or expression of the mRNA. By inhibiting CETP, the reverse
CC   cholesterol transport (RCT) pathway can be inhibited (or eliminated)
CC   thereby preventing the reduction in size density of the high density
CC   lipoproteins (HDL), prolonging HDL half life, and therefore increasing
CC   HDL levels. The ribozymes can be used to treat conditions associated with
CC   abnormal levels of CETP, specifically atherosclerosis, familial
CC   hypercholesterolaemia, peripheral vascular disease, dyslipidaemia,
CC   hyperbetalipoproteinaemia, hypoalphalipoproteinaemia, vascular
CC   complications of diabetes, transplant, atherectomy and angioplastic
CC   restenosis. By inhibiting CETP, the levels of HDL and low density
CC   lipoproteins (LDL), and the HDL:LDL ratio are favourably altered (a
CC   decrease in LDL levels, and a corresponding increase in HDL levels). The
CC   HH ribozymes can also be used diagnostically to study genetic drift and
CC   mutations in diseased cells, and to detect CETP mRNA. As the HH ribozymes
CC   target specific regions of the CETP gene, they have low non-specific
CC   activity
XX
SQ   Sequence 15 BP; 1 A; 5 C; 4 G; 0 T; 5 U; 0 Other;

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 1.6e+02;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         43 CCGGCTAAAGCCGG 56
Db         15 CAGGCTAAAGCCAG 2


RESULT 190
AAT50336/c
ID   AAT50336 standard; RNA; 15 BP.
XX
AC   AAT50336;
XX
DT   11-MAR-1997  (first entry)
XX
DE   Rabbit CETP HH ribozyme target sequence #1788.
XX
KW   Hammerhead ribozyme; cholesterol ester transfer protein; mRNA cleavage;
KW   neutral lipid transfer; plasma lipoprotein; atherosclerosis; atherectomy;
KW   reverse cholesterol transport; high density lipoprotein; therapy; CETP;
KW   familial hypercholesterolaemia; dyslipidaemia; hypoalphalipoproteinaemia;
KW   peripheral vascular disease; hyperbetalipoproteinaemia; RCT; inhibitor;
KW   angioplastic restenosis; low density lipoprotein; diabetes; HDL; rabbit;
KW   LDL; ss.
XX
OS   Oryctolagus cuniculus.
XX
PN   WO9620279-A1.
XX
PD   04-JUL-1996.
XX
PF   11-DEC-1995;   95WO-US016000.
XX
PR   23-DEC-1994;   94US-00363240.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (WARN ) WARNER LAMBERT CO.
XX
PI   Couture L,  Stinchcomb D,  Mcswiggen J,  Bisgaier C,  Pape M;
XX
DR   WPI; 1996-321852/32.
XX
PT   New ribozyme(s) for cleaving cholesterol ester transfer protein mRNA -
PT   useful for preventing or treating initial development, progression or
PT   regression of vascular diseases, esp. familial hypercholesterolaemia.
```

```
XX
PS   Claim 4; Page 43; 72pp; English.
XX
CC   AAT50138-T50359 represent target sequences for the rabbit cholesterol
CC   ester transfer protein (CETP) hammerhead (HH) ribozymes (see AAT50360-
CC   T50546). CETP is a 74 kD glycoprotein that facilitates neutral lipid
CC   transfer between plasma lipoproteins. The numbering of the targets refers
CC   to the position of the cleavage site in full length CETP. The ribozyme
CC   then binds to 5 nucleotides either side of this site. The ribozymes are
CC   able to cleave mRNA from the gene encoding CETP, thereby blocking
CC   synthesis and/or expression of the mRNA. By inhibiting CETP, the reverse
CC   cholesterol transport (RCT) pathway can be inhibited (or eliminated)
CC   thereby preventing the reduction in size density of the high density
CC   lipoproteins (HDL), prolonging HDL half life, and therefore increasing
CC   HDL levels. The ribozymes can be used to treat conditions associated with
CC   abnormal levels of CETP, specifically atherosclerosis, familial
CC   hypercholesterolaemia, peripheral vascular disease, dyslipidaemia,
CC   hyperbetalipoproteinaemia, hypoalphalipoproteinaemia, vascular
CC   complications of diabetes, transplant, atherectomy and angioplastic
CC   restenosis. By inhibiting CETP, the levels of HDL and low density
CC   lipoproteins (LDL), and the HDL:LDL ratio are favourably altered (a
CC   decrease in LDL levels, and a corresponding increase in HDL levels). The
CC   HH ribozymes can also be used diagnostically to study genetic drift and
CC   mutations in diseased cells, and to detect CETP mRNA. As the HH ribozymes
CC   target specific regions of the CETP gene, they have low non-specific
CC   activity
XX
SQ   Sequence 15 BP; 1 A; 5 C; 4 G; 0 T; 5 U; 0 Other;

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 1.6e+02;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         43 CCGGCTAAAGCCGG 56
              | |||||||||| |
Db         14 CAGGCTAAAGCCAG 1


RESULT 191
AAZ62808/c
ID   AAZ62808 standard; RNA; 15 BP.
XX
AC   AAZ62808;
XX
DT   28-MAR-2000  (first entry)
XX
DE   Substrate for HH ribozyme HCV-7906 which cleaves HCV RNA at nt. 7906.
XX
KW   Enzymatic nucleic acid; hammerhead ribozyme; virus replication; cleavage;
KW   cirrhosis; liver failure; hepatocellular carcinoma; interferon; cancer;
KW   autoimmune disease; ss.
XX
OS   Hepatitis C virus.
XX
PN   WO9955847-A2.
XX
PD   04-NOV-1999.
XX
PF   26-APR-1999;   99WO-US009027.
XX
PR   27-APR-1998;   98US-0083217P.
PR   18-SEP-1998;   98US-0100842P.
PR   25-FEB-1999;   99US-00257608.
PR   23-MAR-1999;   99US-00274553.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Blatt L,  Mcswiggen JA,  Roberts E,  Pavco PA,  Macejak D;
XX
DR   WPI; 2000-062023/05.
XX
PT   Novel ribozymes for the treatment of diseases and conditions related to
PT   hepatitis C infection.
XX
PS   Claim 1; Page 64; 123pp; English.
XX
CC   The present sequence represents the preferred target sequence of an
CC   enzymatic nucleic acid, especially a hammerhead ribozyme, which cleaves
CC   the Hepatitis C virus (HCV) RNA sequence at the base position given in
CC   the descriptor line. The HCV sequence was screened for optimal ribozyme
CC   target sites using a computer folding algorithm and regions of the mRNA
CC   which did not form secondary folding structures and contained potential
CC   ribozyme cleavage sites were identified. Ribozymes were synthesised to
CC   target these sites and their activities optimised by either varying the
CC   length of the binding arms or by modification to prevent degradation by
CC   nucleases. The ribozymes of the invention inhibit gene expression and/or
CC   viral replication, and are used to treat diseases associated with
CC   Hepatitis C virus (HCV) infection, e.g. cirrhosis, liver failure and
CC   hepatocellular carcinoma. The ribozymes may be used in combination with
CC   interferon to treat HCV infection, other infectious diseases, autoimmune
CC   diseases, and cancer
XX
SQ   Sequence 15 BP; 2 A; 2 C; 6 G; 0 T; 5 U; 0 Other;

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 1.6e+02;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
              ||||| || |||||
Db         14 GCCCCATAGCCAAA 1


RESULT 192
AAF87726/c
ID   AAF87726 standard; DNA; 15 BP.
XX
AC   AAF87726;
XX
DT   09-JUL-2001  (first entry)
XX
DE   PNA-DNA chimeric oligonucleotide PNA11-DNA4 SEQ ID NO:10.
XX
KW   PNA-DNA chimera; peptide nucleic acid; template dependent ligation;
KW   probe; hybridisation; single nucleotide polymorphism detection;
KW   fluorescent dye; ss.
XX
OS   Bacteria.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    1. .11
FT                   /*tag=  a
FT                   /note= "PNA monomer region; the PNA moiety of the PNA-DNA
FT                   chimera is preferably a 2-aminoethylglycine peptide
FT                   nucleic acid"
XX
PN   WO200127326-A2.
XX
PD   19-APR-2001.
XX
PF   06-OCT-2000; 2000WO-US027730.
XX
PR   08-OCT-1999;   99US-00416003.
XX
PA   (PEPE-) PE CORP.
XX
PI   Egholm M,  Chen C;
XX
DR   WPI; 2001-290732/30.
XX
PT   Production of template-dependent ligation product, useful for detection
PT   of specific DNA sequences, comprises enzymatically ligating PNA-DNA
PT   chimeric probe to second probe in presence of template nucleic acid and
PT   ligase.
XX
PS   Example 2; Page 26; 66pp; English.
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XX
CC   The present invention describes a method of producing a template-
CC   dependent ligation product, useful for the detection of specific DNA
CC   sequences. The method comprises enzymatically ligating a PNA-DNA chimeric
CC   probe to a second probe in the presence of a template nucleic acid and a
CC   ligase. The DNA moiety has at least two nucleotides and a 3'-hydroxyl or
CC   5'-hydroxyl terminus. The chimeric probe and the second probe are
CC   hybridised to the template nucleic acid and are adjacent to each other.
CC   Also described are: (1) a kit for template-dependent ligation comprising
CC   generating a ligation product by enzymatically ligating a PNA-DNA
CC   chimeric probe to a second probe in the presence of a template; and (2) a
CC   duplex hybrid comprising a PNA-DNA chimeric probe, a second probe which
CC   is a PNA-DNA chimera or an oligonucleotide and a template nucleic acid.
CC   Oligonucleotide ligation assays are useful for detecting the presence of
CC   specific sequences in a target DNA sample. The optimised probes and
CC   methods of annealing and ligation improve the precision and accuracy of
CC   assays and tests. The present sequence represents a PNA-DNA chimeric
CC   oligonucleotide which is used in an example from the present invention
XX
SQ   Sequence 15 BP; 2 A; 4 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 1.6e+02;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         48 TAAAGCCGGCCCCT 61
              |||||||||  |||
Db         15 TAAAGCCGGGACCT 2


RESULT 193
AAF29198/c
ID   AAF29198 standard; DNA; 15 BP.
XX
AC   AAF29198;
XX
DT   10-APR-2001  (first entry)
XX
DE   Oligonucleotide SEQ ID 13 which binds a TADG5 derived peptide.
XX
KW   TADG5; human; zinc finger; SH3 domain; cell signalling; ss;
KW   cell cycle control.
XX
OS   Synthetic.
XX
PN   WO200102432-A1.
XX
PD   11-JAN-2001.
XX
PF   30-JUN-2000; 2000WO-US018304.
XX
PR   01-JUL-1999;   99US-00346510.
XX
PA   (UYAR-) UNIV ARKANSAS.
XX
PI   O'brien TJ,  Wang Y;
XX
DR   WPI; 2001-123102/13.
XX
PT   Novel SH3 domain-containing TADG5 protein useful for regulating gene
PT   replication, as a nutrition supplement, and as a marker for human tissue,
PT   or in cell cycle control.
XX
PS   Claim 23; Fig 11; 85pp; English.
XX
CC   This invention relates to an SH3 domain-containing protein termed TADG5,
CC   and its variants. The invention includes amino acid and polynucleotide
CC   sequences for TADG5, and oligonucleotides which bind to either the basic
CC   amino acid region and/or the zinc finger motif of the TADG5 protein. The
CC   basic amino acid region or zinc finger motif of TADG5 is useful for
CC   regulating the expression of the TADG5 gene in a cell. The TADG5 protein
CC   is useful as a source of amino acids, as a nutrition supplement, and as a
CC   marker for human tissue, or in cell cycle control. TADG5 protein or
CC   peptides generated from the protein sequence are useful as antigens for
CC   the production of polyclonal and monoclonal antibodies. DNA encoding
CC   TADG5 is useful as an antisense vehicle for cell cycle control by
CC   shutting down signalling or cell division. The present sequence
CC   represents an oligonucleotide to which a TADG5 derived peptide binds
XX
SQ   Sequence 15 BP; 4 A; 2 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 1.6e+02;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         55 GGCCCCTTAACCAA 68
              | | ||||||||||
Db         15 GTCGCCTTAACCAA 2


RESULT 194
AAC68561/c
ID   AAC68561 standard; DNA; 15 BP.
XX
AC   AAC68561;
XX
DT   20-FEB-2001  (first entry)
XX
DE   Clone 20 DNA sequence which binds to human TADG5 protein.
XX
KW   Human; TADG5; antisense inhibition; cell cycle control; ds.
XX
OS   Unidentified.
XX
PN   US6140074-A.
XX
PD   31-OCT-2000.
XX
PF   09-JUN-1997;   97US-00871732.
XX
PR   09-JUN-1997;   97US-00871732.
XX
PA   (OBRI/) O'BRIEN T J.
PA   (WANG/) WANG Y.
XX
PI   O'brien TJ,  Wang Y;
XX
DR   WPI; 2001-040300/05.
XX
PT   New TADG5 gene and proteins comprising an SH3 domain useful in cell cycle
PT   control, amino acid source, nutrition supplement, marker of human tissues
PT   and in producing antibodies.
XX
PS   Example 1; Fig 11; 26pp; English.
XX
CC   The present sequence binds to human TADG5 protein. The gene encoding
CC   TADG5 is used as an antisense vehicle for cell cycle control by shutting
CC   down signalling or cell division. The protein is useful as a source of
CC   amino acids, as a nutrition supplement, as a marker for human tissue, and
CC   in cell cycle control. The proteins may also be used as antigens for the
CC   production of polyclonal and monoclonal antibodies
XX
SQ   Sequence 15 BP; 4 A; 2 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 1.6e+02;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         55 GGCCCCTTAACCAA 68
              | | ||||||||||
Db         15 GTCGCCTTAACCAA 2


RESULT 195
AAF75701/c
ID   AAF75701 standard; DNA; 15 BP.
```

```
XX
AC   AAF75701;
XX
DT   11-MAY-2001  (first entry)
XX
DE   Murine Xist gene peptide nucleic acid primer P1.
XX
KW   Primer; peptide nucleic acid; PNA; polyamide backbone; murine; Xist; ss.
XX
OS   Mus sp.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .11
FT                   /*tag=  b
FT                   /note= "This sequence is a peptide nucleic acid (PNA),
FT                   i.e. it contains a polyamide backbone instead of a
FT                   deoxyribose backbone"
FT   modified_base   1
FT                   /*tag=  a
FT                   /note= "Ac-T"
XX
PN   WO200112852-A2.
XX
PD   22-FEB-2001.
XX
PF   09-AUG-2000; 2000WO-US021880.
XX
PR   13-AUG-1999;   99US-00373845.
XX
PA   (PEPE-) PE CORP.
XX
PI   Egholm M,  Chen C;
XX
DR   WPI; 2001-211233/21.
XX
PT   Producing non-radioisotopically labeled PNA-DNA chimeras for nucleic acid
PT   analysis, comprises extending the chimera using a polymerase and an
PT   extension reagent with non-radioisotopically labeled nucleotide 5'-
PT   triphosphate.
XX
PS   Example 3; Page 26; 59pp; English.
XX
CC   The present invention relates to a method for producing a non-
CC   radioisotopically labelled chimeras. The method comprises enzymatically
CC   extending a PNA-DNA chimera in the presence of a template nucleic acid, a
CC   polymerase and a primer extension reagent comprising a non-
CC   radioisotopically labeled nucleotide 5'-triphosphate capable of effecting
CC   enzymatic chimera primer extension. The present sequence is a primer used
CC   in the method of the present invention
XX
SQ   Sequence 15 BP; 2 A; 4 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 1.6e+02;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         48 TAAAGCCGGCCCCT 61
              |||||||||  |||
Db         15 TAAAGCCGGGACCT 2


RESULT 196
AAF46718
ID   AAF46718 standard; DNA; 15 BP.
XX
AC   AAF46718;
XX
DT   30-MAR-2001  (first entry)
XX
DE   IGFBP3 oligonucleotide #138.
XX
KW   Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
KW   cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
KW   skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
KW   IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
KW   growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
KW   keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
KW   hyperneovascular condition; hyperplasia; kidney disease;
KW   neovascular condition of the retina; ss.
XX
OS   Homo sapiens.
XX
PN   WO200078341-A1.
XX
PD   28-DEC-2000.
XX
PF   21-JUN-2000; 2000WO-AU000693.
XX
PR   21-JUN-1999;   99US-0140345P.
XX
PA   (MURD-) MURDOCH CHILDRENS RES INST.
XX
PI   Wraight CJ,  Werther GA,  Edmondson SR;
XX
DR   WPI; 2001-041421/05.
XX
PT   Ameliorating the effects of a disorder, e.g. psoriasis, by administering
PT   UV (ultra-violet) treatment (optional) and an antisense nucleic acid that
PT   inhibits or reduces growth factor mediated cell proliferation and/or
PT   inflammation.
XX
PS   Example 7; Page 45; 201pp; English.
XX
CC   The present invention relates to a method for ameliorating the effects of
CC   skin disorders. The method comprises contacting the skin with an
CC   antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
CC   receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
CC   inhibiting or reducing growth factor mediated cell proliferation,
CC   inflammation and/or other disorders. The present sequence is an
CC   oligonucleotide which can be used to design the antisense
CC   oligonucleotides of the present invention (see AAF45151 and AAF45153-
CC   F45161). The method is useful for ameliorating the effects of psoriasis,
CC   ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis,
CC   neoplasias, scleroderma, warts, benign growths, cancers of the skin, a
CC   hyperneovascular condition such as a neovascular condition of the retina,
CC   brain or skin, growth factor-mediated malignancies, other sclerotic
CC   disease, kidney disease, hyperproliferation of the inside of blood
CC   vessels or any other hyperplasia
XX
SQ   Sequence 15 BP; 1 A; 7 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 1.6e+02;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         25 CGCTTCGCTCACTC 38
              |||| |||| ||||
Db          2 CGCTGCGCTGACTC 15


RESULT 197
AAF46719
ID   AAF46719 standard; DNA; 15 BP.
XX
AC   AAF46719;
XX
DT   30-MAR-2001  (first entry)
XX
DE   IGFBP3 oligonucleotide #139.
XX
KW   Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic;
KW   cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid;
KW   skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
KW   IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris;
KW   growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
KW   keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
```

```
KW   hyperneovascular condition; hyperplasia; kidney disease;
KW   neovascular condition of the retina; ss.
XX
OS   Homo sapiens.
XX
PN   WO200078341-A1.
XX
PD   28-DEC-2000.
XX
PF   21-JUN-2000; 2000WO-AU000693.
XX
PR   21-JUN-1999;   99US-0140345P.
XX
PA   (MURD-) MURDOCH CHILDRENS RES INST.
XX
PI   Wraight CJ,  Werther GA,  Edmondson SR;
XX
DR   WPI; 2001-041421/05.
XX
PT   Ameliorating the effects of a disorder, e.g. psoriasis, by administering
PT   UV (ultra-violet) treatment (optional) and an antisense nucleic acid that
PT   inhibits or reduces growth factor mediated cell proliferation and/or
PT   inflammation.
XX
PS   Example 7; Page 45; 201pp; English.
XX
CC   The present invention relates to a method for ameliorating the effects of
CC   skin disorders. The method comprises contacting the skin with an
CC   antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1
CC   receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
CC   inhibiting or reducing growth factor mediated cell proliferation,
CC   inflammation and/or other disorders. The present sequence is an
CC   oligonucleotide which can be used to design the antisense
CC   oligonucleotides of the present invention (see AAF45151 and AAF45153-
CC   F45161). The method is useful for ameliorating the effects of psoriasis,
CC   ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis,
CC   neoplasias, scleroderma, warts, benign growths, cancers of the skin, a
CC   hyperneovascular condition such as a neovascular condition of the retina,
CC   brain or skin, growth factor-mediated malignancies, other sclerotic
CC   disease, kidney disease, hyperproliferation of the inside of blood
CC   vessels or any other hyperplasia
XX
SQ   Sequence 15 BP; 1 A; 6 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 1.6e+02;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         25 CGCTTCGCTCACTC 38
              |||| |||| ||||
Db          1 CGCTGCGCTGACTC 14


RESULT 198
ABX00659/c
ID   ABX00659 standard; RNA; 15 BP.
XX
AC   ABX00659;
XX
DT   23-DEC-2002  (first entry)
XX
DE   Hepatitis C virus substrate #441 for HCV hammerhead ribozyme #441.
XX
KW   Enzymatic nucleic acid; RNA cleavage; Hepatitis C virus infection;
KW   HCV ribozyme; HCV expression; HCV replication; cirrhosis; virucide;
KW   liver failure; hepatocellular carcinoma; HCV infection; drug therapy;
KW   type I interferon; interferon alpha; interferon beta; cytostatic;
KW   interferon gamma; consensus interferon; hepatotropic; antiinflammatory;
KW   substrate; hammerhead ribozyme; HH ribozyme; ss.
XX
OS   Hepatitis C virus.
XX
PN   US2002082225-A1.
XX
PD   27-JUN-2002.
XX
PF   23-MAR-1999;   99US-00274553.
XX
PR   23-MAR-1999;   99US-00274553.
XX
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J A.
PA   (ROBE/) ROBERTS B.
PA   (PAVC/) PAVCO P A.
PA   (MACE/) MACEJACK D.
XX
PI   Blatt L,  Mcswiggen JA,  Roberts B,  Pavco PA,  Macejack D;
XX
DR   WPI; 2002-617759/66.
XX
PT   New ribozymes targeting RNA derived from hepatitis C virus inhibit viral
PT   replication and are useful to treat hepatitis C virus infections and
PT   cirrhosis, liver failure or hepatocellular carcinoma.
XX
PS   Claim 1; Page 33; 80pp; English.
XX
CC   The present invention relates to enzymatic nucleic acids which
CC   specifically cleave RNA derived from Hepatitis C virus (HCV). The
CC   enzymatic nucleic acid or ribozyme is in a hammerhead (HH) or hairpin
CC   (HP) motif where the binding arms comprise sequences complementary to one
CC   of the substrate sequences defined in the specification. The HCV
CC   ribozymes are useful for modulating the expression and/or replication of
CC   HCV. They can be used to treat cirrhosis, liver failure and/or
CC   hepatocellular carcinoma. The HCV ribozymes are also useful for treating
CC   a condition associated with HCV infection in conjunction with one or more
CC   other drug therapies, particularly type I interferon, especially
CC   interferon alpha, beta or gamma or consensus interferon. The present
CC   sequence represents a substrate for a HCV hammerhead (HH) ribozyme. Note:
CC   Some of the sequence data for this patent did not form part of the
CC   printed specification. The complete sequence data for this patent was
CC   obtained in electronic format directly from the USPTO web site at
CC   seqdata.uspto.gov/psipsDIDEntry.html
XX
SQ   Sequence 15 BP; 2 A; 2 C; 6 G; 0 T; 5 U; 0 Other;

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 1.6e+02;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCAAA 69
              ||||| || |||||
Db         14 GCCCCATAGCCAAA 1


RESULT 199
ADL61688/c
ID   ADL61688 standard; DNA; 15 BP.
XX
AC   ADL61688;
XX
DT   20-MAY-2004  (first entry)
XX
DE   Human p14 methylated PCR primer p14_305m.
XX
KW   detection; methylated cytosine; non-methylated cytosine; CpG-rich region;
KW   BRCA-1; E-cadherin; erb-b2; MDR-1; probe; biochip;
KW   tumour-associated gene; tumour-repressor gene; cancer;
KW   methylation pattern; PCR; primer; ss; p14.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   DE10215770-A1.
XX
PD   30-OCT-2003.
XX
```

```
PF   10-APR-2002; 2002DE-01015770.
XX
PR   10-APR-2002; 2002DE-01015770.
XX
PA   (GIES/) GIESING M.
XX
PI   Giesing M,  Prix L,  Schuetz A;
XX
DR   WPI; 2003-835030/78.
XX
PT   Detecting methylated and non-methylated cytosines, useful for assessing
PT   methylation status of cancer-associated gene promoters, by specific
PT   amplification and hybridization.
XX
PS   Example; SEQ ID NO 33; 22pp; German.
XX
CC   This invention describes a novel method for detecting methylated and/or
CC   non-methylated cytosine (C) in at least one nucleic acid. The method
CC   comprises (a) treating nucleic acid so that non-methylated C is modified;
CC   (b) subjecting the treated nucleic acid to a methylation-specific
CC   amplification; and (c) determining, by hybridisation, whether the nucleic
CC   acid from (b) has at least one non-modified and/or modified C-containing
CC   sequence. The invention also described an analysis kit containing at
CC   least one each of methylation-specific primer and methylation-specific
CC   probe, optionally also other standard reagents for performing the new
CC   methods. The nucleic acid is DNA and has been recovered from biological
CC   samples (e.g. blood, urine, mucosal smears etc.) and processed by
CC   standard methods. The method is used to detect (non-)methylated C in the
CC   regulatory regions of DNA, particularly CpG-rich regions at the
CC   transcriptional start site, e.g. in the BRCA-1, E-cadherin, erb-b2 or MDR
CC   -1 genes, or other genes (about 20 specified), particularly in at least
CC   two different nucleic acid. Non-methylated C is modified so that it has
CC   base-pairing behaviour different from that of C, specifically it is
CC   treated first with bisulfite and then with alkali, converting it to
CC   uracil. Particularly nucleic acid in the primer extension region includes
CC   at least 2 CpG motifs, and in the primer pair used, one primer has a 5'-
CC   phosphate group while the other is labelled with a fluorescent or
CC   chemiluminescent marker. Amplification is by multiplex PCR and the
CC   amplicon tested with at least one additional probe, at least partly
CC   complementary to a region containing a modified C. The probes are
CC   immobilised on an array as part of a biochip, especially formed as a
CC   dipstick that also includes a closure and a support stem with the biochip
CC   attached to its base. The dipstick is designed for insertion in a
CC   reaction vessel. The method is especially used to assess methylation
CC   status in the promoter region of tumour-associated, especially tumour-
CC   repressor, genes, particularly to identify patients as risk of developing
CC   cancer. The method indicates the methylation pattern of a specific
CC   sequence, including in samples with a relatively large excess of non-
CC   methylated nucleic acid, so can detect partially methylated sequences.
CC   Several genes can be analysed simultaneously.
XX
SQ   Sequence 15 BP; 2 A; 2 C; 8 G; 3 T; 0 U; 0 Other;

  Query Match             14.0%;  Score 10.8;  DB 1;  Length 15;
  Best Local Similarity   85.7%;  Pred. No. 1.6e+02;
  Matches   12;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         30 CGCTCACTCGGGAC 43
              | ||||||| |||
Db         14 CCCTCACTCGCGAC 1


RESULT 200
ABF31054/c
ID   ABF31054 standard; DNA; 13 BP.
XX
AC   ABF31054;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 131051 for detecting SNP TSC0032709.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 131051; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 4 G; 5 T; 0 U; 1 Other;

  Query Match             13.8%;  Score 10.6;  DB 1;  Length 13;
  Best Local Similarity   90.9%;  Pred. No. 1.4e+02;
  Matches   10;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAACT 11
              :|||||||||||
Db         13 RCCTAACAACT 3


RESULT 201
ABC20880/c
ID   ABC20880 standard; DNA; 13 BP.
XX
AC   ABC20880;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 20897 for detecting SNP TSC0004242.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
```

```
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 20897; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 4 G; 6 T; 0 U; 1 Other;

  Query Match             13.8%;  Score 10.6;  DB 1;  Length 13;
  Best Local Similarity   90.9%;  Pred. No. 1.4e+02;
  Matches   10;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAACT 11
              :||||||||||
Db         13 RCCTAACAACT 3


RESULT 202
ABC20881
ID   ABC20881 standard; DNA; 13 BP.
XX
AC   ABC20881;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 20898 for detecting SNP TSC0004242.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 20898; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 4 C; 0 G; 2 T; 0 U; 1 Other;

  Query Match             13.8%;  Score 10.6;  DB 1;  Length 13;
  Best Local Similarity   90.9%;  Pred. No. 1.4e+02;
  Matches   10;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAACT 11
              :||||||||||
Db          1 RCCTAACAACT 11


RESULT 203
ABF31055
ID   ABF31055 standard; DNA; 13 BP.
XX
AC   ABF31055;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 131052 for detecting SNP TSC0032709.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 131052; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 4 C; 0 G; 3 T; 0 U; 1 Other;
```

```
  Query Match             13.8%;  Score 10.6;  DB 1;  Length 13;
  Best Local Similarity   90.9%;  Pred. No. 1.4e+02;
  Matches   10;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAACT 11
              :||||||||||
Db          1 RCCTAACAACT 11


RESULT 204
ABK24190/c
ID   ABK24190 standard; DNA; 15 BP.
XX
AC   ABK24190;
XX
DT   09-APR-2002  (first entry)
XX
DE   Retinaldehyde-binding protein 1 allele specific PCR primer #11.
XX
KW   Human; retinaldehyde-binding protein 1; ss; RLBP1; haplotype; primer;
KW   genotyping; probe; autosomal recessive retinitis pigmentosa; arRP; PCR;
KW   chromosome 15q26; transgenic; ASO; allele specific oligonucleotide.
XX
OS   Homo sapiens.
XX
PN   WO200192278-A2.
XX
PD   06-DEC-2001.
XX
PF   29-MAY-2001; 2001WO-US017252.
XX
PR   26-MAY-2000; 2000US-0207618P.
XX
PA   (GENA-) GENAISSANCE PHARM INC.
XX
PI   Choi JY,  Kazemi A,  Koshy B;
XX
DR   WPI; 2002-122053/16.
XX
PT   New genetic variants having polymorphisms in the retinaldehyde-binding
PT   protein 1 gene, useful for studying the function of and for expressing
PT   RLBP1 protein for use in screening drugs for treating diseases related to
PT   RLBP1 activity.
XX
PS   Claim 16; Page 13; 107pp; English.
XX
CC   The invention relates to an isolated polynucleotide, which comprises
CC   genes and haplotypes of the retinaldehyde-binding protein 1 (RLBP1) gene.
CC   The polynucleotide comprises polymorphic sites in the RLBP1 gene, which
CC   are referred to as PS1-24 to designate the order in which they are
CC   located in the gene. Also included are methods for haplotyping or
CC   genotyping the RLBP1 gene of an individual, a method for predicting a
CC   haplotype pair for the RLBP1 gene of an individual, a method for
CC   identifying an association between a trait and at least one haplotype or
CC   haplotype pair of the RLBP1 gene, a composition comprising at least one
CC   genotyping oligonucleotide for detecting a polymorphism in the RLBP1 gene
CC   at a PS consisting of PS1-PS24, a kit for genotyping the RLBP1 gene of an
CC   individual comprising a set of oligonucleotides designed to genotype each
CC   of PS1-PS24 recombinant non-human organisms transformed or transfected
CC   with the isolated polynucleotide, where the organism expresses a RLBP1
CC   protein encoded by the first nucleotide sequence or expresses an RLBP1
CC   protein encoded by the polymorphic variant sequence, an isolated
CC   polypeptide comprising an amino acid sequence that is a polymorphic
CC   variant of a reference sequence for the RLBP1 protein or its fragment, an
CC   anti-RLBP1 antibody, a method for screening for drugs targeting the
CC   isolated polypeptide, and a computer system for storing and analysing
CC   polymorphism data for the RLBP1 oncogene gene. The polynucleotide
CC   comprising polymorphisms in the RLBP1 gene is useful in studying the
CC   expression and function of RLBP1, and in expressing RLBP1 protein for use
CC   in screening candidate drugs to treat diseases related to RLBP1 activity
CC   (e.g autosomal recessive retinitis pigmentosa (arRP). The methods and
CC   haplotypes are useful in improving the efficiency and output of several
CC   steps in the drug discovery and development process, including target
CC   validation, identifying lead compounds, and early phase clinical trials.
CC   These are also useful for designing clinical trials of candidate drugs
CC   for treating a specific condition or disease, as well as for screening
CC   compounds targeting RLBP1 to treat a specific condition or disease
CC   predicted to be associated with RLBP1 activity. The kit and method are
CC   useful for determining whether an individual has one of the haplotypes or
CC   haplotype pairs cited above. The transgenic animals are useful for
CC   studying expression of the RLBP1 isogenes in vivo, for in vivo screening
CC   and testing of drugs targeted against RLBP1 protein, and for testing the
CC   efficacy of therapeutic agents and compounds for retinal diseases in a
CC   biological system. The gene for RLBP1 is located on chromosome 15q26. The
CC   present sequence is an allele specific oligonucleotide (ASO) PCR primer
CC   for amplifying a nucleic acid containing a polymorphic RLBP sequence
XX
SQ   Sequence 15 BP; 3 A; 3 C; 8 G; 0 T; 0 U; 1 Other;

  Query Match             13.8%;  Score 10.6;  DB 1;  Length 15;
  Best Local Similarity   90.9%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         52 GCCGGCCCCTT 62
              |:||||||||||
Db         15 GYCGGCCCCTT 5


RESULT 205
ABV99780
ID   ABV99780 standard; DNA; 15 BP.
XX
AC   ABV99780;
XX
DT   24-FEB-2003  (first entry)
XX
DE   Human PFKFB2 allele specific oligonucleotide primer #6.
XX
KW   Human; 6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 2; PFKFB2;
KW   cytostatic; antidiabetic; gene therapy; cancer; diabetes; ss; ASO;
KW   allele specific oligonucleotide; primer; polymorphism.
XX
OS   Homo sapiens.
XX
PN   WO200194363-A2.
XX
PD   13-DEC-2001.
XX
PF   07-JUN-2001; 2001WO-US018458.
XX
PR   07-JUN-2000; 2000US-0209935P.
XX
PA   (GENA-) GENAISSANCE PHARM INC.
XX
PI   Duda A,  Kazemi A,  Koshy B;
XX
DR   WPI; 2002-566434/60.
XX
PT   New 6-phosphofruoto-2-kinase/fructose-2,6-bisphosphatase 2 (PFKFB2) gene
PT   variants, for improving efficiency and reliability in the development of
PT   drugs for treating diseases associated with PFKFB2 activity e.g. cancer.
XX
PS   Claim 16; Page 13; 95pp; English.
XX
CC   The invention relates to a novel human 6-phosphofructo-2-kinase/ fructose
CC   -2,6-biphosphatase 2 (PFKFB2) isogene. The PFKFB2 of the invention has
CC   cytostatic and antidiabetic activity. The polynucleotides may have a use
CC   in gene therapy. The identified candidate agents targeting PFKFB2, are
CC   useful for treating cancer and diabetes. The methods of the invention are
CC   useful for improving the efficiency and reliability of several steps in
CC   the discovery and development of drugs for treating diseases associated
CC   with PFKFB2 activity. The present sequence represents a allele specific
CC   oligonucleotide (ASO) primer used in the invention to detect PFKFB2 gene
CC   polymorphisms
XX
```

```
SQ   Sequence 15 BP; 1 A; 6 C; 7 G; 0 T; 0 U; 1 Other;

  Query Match             13.8%;  Score 10.6;  DB 1;  Length 15;
  Best Local Similarity   90.9%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         38 CGGGACCGGCT 48
              ||||||||||:
Db          4 CGGGACCGGCK 14


RESULT 206
ACN13607
ID   ACN13607 standard; RNA; 17 BP.
XX
AC   ACN13607;
XX
DT   22-APR-2004  (first entry)
XX
DE   WNV minus strand Zinzyme substrate SEQ ID NO 13610.
XX
KW   WNV; West Nile Virus; antiinflammatory; cytostatic; hepatotropic;
KW   virucide; neuroprotective; antibacterial; replication; pancreatitis;
KW   encephalitis; myocarditis; meningitis; infection; hepatitis;
KW   liver failure; cancer; cirrhosis; Hammerhead; Inozyme; DNAzyme;
KW   Amberzyme; Zinzyme; ss.
XX
OS   West Nile Virus.
XX
PN   WO200268637-A2.
XX
PD   06-SEP-2002.
XX
PF   19-OCT-2001; 2001WO-US048350.
XX
PR   20-OCT-2000; 2000US-0242411P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J A.
XX
PI   Blatt L,  Mcswiggen JA;
XX
DR   WPI; 2002-706994/76.
XX
PT   New nucleic acid molecule that modulates replication of West Nile Virus
PT   (WNV), useful for treating a condition related to WNV infection e.g.
PT   pancreatitis, meningitis, hepatocellular carcinoma or cirrhosis.
XX
PS   Claim 23; SEQ ID NO 13610; 495pp; English.
XX
CC   The invention relates to nucleic acid molecules that modulate replication
CC   of the West Nile Virus (WNV). The nucleic acid molecules are useful for
CC   treating a condition related to WNV infection e.g. pancreatitis,
CC   encephalitis, myocarditis, meningitis, neurologic infection, hepatitis,
CC   liver failure, hepatocellular carcinoma or cirrhosis. The nucleic acid
CC   molecule is selected from the group of ribozymes consisting of
CC   Hammerhead, Inozyme, G-cleaver, DNAzyme, Amberzyme and Zinzyme. The
CC   nucleic acid molecules further comprise at least five ribose residues, at
CC   least ten 2'-O-methyl modifications, phosphorothioate linkages on at
CC   least three of the 5' terminal nucleotides and a 3' end modification of a
CC   3'-3' inverted abasic moiety. Nucleic acid molecules SEQ ID NO 1 to 37080
CC   are claimed; however, SEQ ID NO 2194-2206 and 17502-17514 are not given
CC   in the specification. The present sequence is that of a nucleic acid
CC   molecule of the invention
XX
SQ   Sequence 17 BP; 0 A; 8 C; 6 G; 0 T; 3 U; 0 Other;

  Query Match             13.8%;  Score 10.6;  DB 1;  Length 17;
  Best Local Similarity   70.6%;  Pred. No. 2e+02;
  Matches   12;  Conservative    1;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         44 CGGCTAAAGCCGGCCCC 60
                ||||:  ||.||| |||
Db          1 CGGCUCUUGCCGGGCCC 17


RESULT 207
ACN01433/c
ID   ACN01433 standard; RNA; 17 BP.
XX
AC   ACN01433;
XX
DT   22-APR-2004  (first entry)
XX
DE   WNV Inozyme substrate SEQ ID NO 1423.
XX
KW   WNV; West Nile Virus; antiinflammatory; cytostatic; hepatotropic;
KW   virucide; neuroprotective; antibacterial; replication; pancreatitis;
KW   encephalitis; myocarditis; meningitis; infection; hepatitis;
KW   liver failure; cancer; cirrhosis; Hammerhead; Inozyme; DNAzyme;
KW   Amberzyme; Zinzyme; ss.
XX
OS   West Nile Virus.
XX
PN   WO200268637-A2.
XX
PD   06-SEP-2002.
XX
PF   19-OCT-2001; 2001WO-US048350.
XX
PR   20-OCT-2000; 2000US-0242411P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J A.
XX
PI   Blatt L,  Mcswiggen JA;
XX
DR   WPI; 2002-706994/76.
XX
PT   New nucleic acid molecule that modulates replication of West Nile Virus
PT   (WNV), useful for treating a condition related to WNV infection e.g.
PT   pancreatitis, meningitis, hepatocellular carcinoma or cirrhosis.
XX
PS   Claim 23; SEQ ID NO 1423; 495pp; English.
XX
CC   The invention relates to nucleic acid molecules that modulate replication
CC   of the West Nile Virus (WNV). The nucleic acid molecules are useful for
CC   treating a condition related to WNV infection e.g. pancreatitis,
CC   encephalitis, myocarditis, meningitis, neurologic infection, hepatitis,
CC   liver failure, hepatocellular carcinoma or cirrhosis. The nucleic acid
CC   molecule is selected from the group of ribozymes consisting of
CC   Hammerhead, Inozyme, G-cleaver, DNAzyme, Amberzyme and Zinzyme. The
CC   nucleic acid molecules further comprise at least five ribose residues, at
CC   least ten 2'-O-methyl modifications, phosphorothioate linkages on at
CC   least three of the 5' terminal nucleotides and a 3' end modification of a
CC   3'-3' inverted abasic moiety. Nucleic acid molecules SEQ ID NO 1 to 37080
CC   are claimed; however, SEQ ID NO 2194-2206 and 17502-17514 are not given
CC   in the specification. The present sequence is that of a nucleic acid
CC   molecule of the invention
XX
SQ   Sequence 17 BP; 3 A; 6 C; 8 G; 0 T; 0 U; 0 Other;

  Query Match             13.8%;  Score 10.6;  DB 1;  Length 17;
  Best Local Similarity   76.5%;  Pred. No. 2e+02;
  Matches   13;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         43 CCGGCTAAAGCCGGCCC 59
              ||||||  ||||| ||
Db         17 CCGGCTCTTGCCGGGCC 1


RESULT 208
ACN09482
ID   ACN09482 standard; RNA; 17 BP.
```

```
XX
AC   ACN09482;
XX
DT   22-APR-2004  (first entry)
XX
DE   WNV minus strand Hammerhead Ribozyme substrate SEQ ID NO 9485.
XX
KW   WNV; West Nile Virus; antiinflammatory; cytostatic; hepatotropic;
KW   virucide; neuroprotective; antibacterial; replication; pancreatitis;
KW   encephalitis; myocarditis; meningitis; infection; hepatitis;
KW   liver failure; cancer; cirrhosis; Hammerhead; Inozyme; DNAzyme;
KW   Amberzyme; Zinzyme; ss.
XX
OS   West Nile Virus.
XX
PN   WO200268637-A2.
XX
PD   06-SEP-2002.
XX
PF   19-OCT-2001; 2001WO-US048350.
XX
PR   20-OCT-2000; 2000US-0242411P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MCSW/) MCSWIGGEN J A.
XX
PI   Blatt L,  Mcswiggen JA;
XX
DR   WPI; 2002-706994/76.
XX
PT   New nucleic acid molecule that modulates replication of West Nile Virus
PT   (WNV), useful for treating a condition related to WNV infection e.g.
PT   pancreatitis, meningitis, hepatocellular carcinoma or cirrhosis.
XX
PS   Claim 23; SEQ ID NO 9485; 495pp; English.
XX
CC   The invention relates to nucleic acid molecules that modulate replication
CC   of the West Nile Virus (WNV). The nucleic acid molecules are useful for
CC   treating a condition related to WNV infection e.g. pancreatitis,
CC   encephalitis, myocarditis, meningitis, neurologic infection, hepatitis,
CC   liver failure, hepatocellular carcinoma or cirrhosis. The nucleic acid
CC   molecule is selected from the group of ribozymes consisting of
CC   Hammerhead, Inozyme, G-cleaver, DNAzyme, Amberzyme and Zinzyme. The
CC   nucleic acid molecules further comprise at least five ribose residues, at
CC   least ten 2'-O-methyl modifications, phosphorothioate linkages on at
CC   least three of the 5' terminal nucleotides and a 3' end modification of a
CC   3'-3' inverted abasic moiety. Nucleic acid molecules SEQ ID NO 1 to 37080
CC   are claimed; however, SEQ ID NO 2194-2206 and 17502-17514 are not given
CC   in the specification. The present sequence is that of a nucleic acid
CC   molecule of the invention
XX
SQ   Sequence 17 BP; 0 A; 8 C; 6 G; 0 T; 3 U; 0 Other;

  Query Match             13.8%;  Score 10.6;  DB 1;  Length 17;
  Best Local Similarity   70.6%;  Pred. No. 2e+02;
  Matches   12;  Conservative    1;  Mismatches    4;  Indels    0;  Gaps    0;

Qy         43 CCGGCTAAAGCCGGCCC 59
              |||||:   ||||| ||
Db          1 CCGGCUCUUGCCGGGCC 17


RESULT 209
ABI21580/c
ID   ABI21580 standard; DNA; 12 BP.
XX
AC   ABI21580;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 321553 for detecting SNP TSC0030322.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 321553; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 3 A; 0 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 12;
  Best Local Similarity   91.7%;  Pred. No. 1.4e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
              ||||||||||.|
Db         12 TTAACCAAACAT 1


RESULT 210
ABI37357
ID   ABI37357 standard; DNA; 12 BP.
XX
AC   ABI37357;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 337330 for detecting SNP TSC0039822.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
```

```
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 337330; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 5 A; 3 C; 0 G; 4 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 12;
  Best Local Similarity   91.7%;  Pred. No. 1.4e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          61 TTAACCAAACGT 72
               ||||||||||  |
Db           1 TTAACCAAACTT 12


RESULT 211
ABI24047
ID   ABI24047 standard; DNA; 12 BP.
XX
AC   ABI24047;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 324020 for detecting SNP TSC0031735.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 324020; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 0 A; 6 C; 2 G; 4 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 12;
  Best Local Similarity   91.7%;  Pred. No. 1.4e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          27 CTTCGCTCACTC 38
               |||||||| |||
Db           1 CTTCGCTCGCTC 12


RESULT 212
ABH88814
ID   ABH88814 standard; DNA; 12 BP.
XX
AC   ABH88814;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 288807 for detecting SNP TSC0013687.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 288807; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
```

```
SQ   Sequence 12 BP; 4 A; 5 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 12;
  Best Local Similarity   91.7%;  Pred. No. 1.4e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         57 CCCCTTAACCAA 68
              ||||||||| ||
Db          1 CCCCTTAACTAA 12


RESULT 213
ABH76526
ID   ABH76526 standard; DNA; 12 BP.
XX
AC   ABH76526;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 276519 for detecting SNP TSC0004213.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 276519; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 5 A; 5 C; 1 G; 1 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 12;
  Best Local Similarity   91.7%;  Pred. No. 1.4e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAACG 71
              | ||||||||||
Db          1 CCTAACCAAACG 12


RESULT 214
ABI10237
ID   ABI10237 standard; DNA; 12 BP.
XX
AC   ABI10237;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 310210 for detecting SNP TSC0023863.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 310210; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 2 A; 1 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 12;
  Best Local Similarity   91.7%;  Pred. No. 1.4e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         13 GTTCAAGTCGTT 24
              ||| ||||||||
Db          1 GTTGAAGTCGTT 12


RESULT 215
ABI24044
ID   ABI24044 standard; DNA; 12 BP.
XX
AC   ABI24044;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 324017 for detecting SNP TSC0031735.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
```

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XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 324017; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 2 A; 6 C; 0 G; 4 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 12;
  Best Local Similarity   91.7%;  Pred. No. 1.4e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         27 CTTCGCTCACTC 38
               |||| |||||||
Db          1 CTTCACTCACTC 12


RESULT 216
ABH84889
ID   ABH84889 standard; DNA; 12 BP.
XX
AC   ABH84889;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 284882 for detecting SNP TSC0012040.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 284882; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 6 A; 4 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 12;
  Best Local Similarity   91.7%;  Pred. No. 1.4e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         63 AACCAAACGTTA 74
               |||||||| |||
Db          1 AACCAAACCTTA 12


RESULT 217
ABI17229
ID   ABI17229 standard; DNA; 12 BP.
XX
AC   ABI17229;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 317202 for detecting SNP TSC0027861.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 317202; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
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CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 6 A; 4 C; 1 G; 1 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 12;
  Best Local Similarity   91.7%;  Pred. No. 1.4e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         63 AACCAAACGTTA 74
              ||||||||||  |
Db          1 AACCAAACGTCA 12


RESULT 218
ABI23296/c
ID   ABI23296 standard; DNA; 12 BP.
XX
AC   ABI23296;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 323269 for detecting SNP TSC0031302.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 323269; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 1 A; 1 C; 4 G; 6 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 12;
  Best Local Similarity   91.7%;  Pred. No. 1.4e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         63 AACCAAACGTTA 74
              ||||||||| ||
Db         12 AACCAAACGCTA 1


RESULT 219
ABI09396
ID   ABI09396 standard; DNA; 12 BP.
XX
AC   ABI09396;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 309369 for detecting SNP TSC0023499.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 309369; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 6 A; 3 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 12;
  Best Local Similarity   91.7%;  Pred. No. 1.4e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
              ||||||||||  |
Db          1 TTAACCAAACAT 12


RESULT 220
ABI39210/c
ID   ABI39210 standard; DNA; 12 BP.
XX
AC   ABI39210;
XX
DT   22-FEB-2002  (first entry)
```

```
XX
DE   Oligonucleotide primer SEQ ID NO 339183 for detecting SNP TSC0040887.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 339183; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 3 A; 0 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 12;
  Best Local Similarity   91.7%;  Pred. No. 1.4e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCAAA 69
              ||||||||| ||
Db         12 CCCTTAACCTAA 1


RESULT 221
ABI79324/c
ID   ABI79324 standard; DNA; 12 BP.
XX
AC   ABI79324;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 379297 for detecting SNP TSC0063196.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 379297; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 3 A; 0 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 12;
  Best Local Similarity   91.7%;  Pred. No. 1.4e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCAAA 69
              | ||||||||||
Db         12 CTCTTAACCAAA 1


RESULT 222
ABI00892
ID   ABI00892 standard; DNA; 12 BP.
XX
AC   ABI00892;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 300865 for detecting SNP TSC0019226.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
```

```
XX
PS   Claim 1; SEQ ID NO 300865; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 6 A; 2 C; 1 G; 3 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 12;
  Best Local Similarity   91.7%;  Pred. No. 1.4e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         62 TAACCAAACGTT 73
              ||| ||||||||
Db          1 TAAACAAACGTT 12


RESULT 223
ABI65478
ID   ABI65478 standard; DNA; 12 BP.
XX
AC   ABI65478;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 365451 for detecting SNP TSC0055131.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 365451; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 4 A; 7 C; 0 G; 1 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 12;
  Best Local Similarity   91.7%;  Pred. No. 1.4e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         57 CCCCTTAACCAA 68
              ||||| ||||||
Db          1 CCCCTCAACCAA 12


RESULT 224
ABI09522
ID   ABI09522 standard; DNA; 12 BP.
XX
AC   ABI09522;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 309495 for detecting SNP TSC0023556.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 309495; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 7 A; 3 C; 1 G; 1 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 12;
  Best Local Similarity   91.7%;  Pred. No. 1.4e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         63 AACCAAACGTTA 74
              |||||||||| |
Db          1 AACCAAACGTAA 12
```

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RESULT 225
ABI24607/c
ID   ABI24607 standard; DNA; 12 BP.
XX
AC   ABI24607;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 324580 for detecting SNP TSC0032119.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 324580; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 2 A; 1 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 12;
  Best Local Similarity   91.7%;  Pred. No. 1.4e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         63 AACCAAACGTTA 74
               ||||| ||||||
Db         12 AACCACACGTTA 1


RESULT 226
ABI62668
ID   ABI62668 standard; DNA; 12 BP.
XX
AC   ABI62668;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 362641 for detecting SNP TSC0053345.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 362641; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 4 A; 5 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 12;
  Best Local Similarity   91.7%;  Pred. No. 1.4e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         57 CCCCTTAACCAA 68
               ||| ||||||||
Db          1 CCCTTTAACCAA 12


RESULT 227
ABF06463
ID   ABF06463 standard; DNA; 13 BP.
XX
AC   ABF06463;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 106460 for detecting SNP TSC0026684.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
```

```
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 106460; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 4 C; 0 G; 4 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCAAA 69
              ||||||||  |||
Db          1 CCCTTAACTAAA 12


RESULT 228
ABC33108/c
ID   ABC33108 standard; DNA; 13 BP.
XX
AC   ABC33108;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 33125 for detecting SNP TSC0010560.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 33125; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCAAA 69
              ||||||||| ||
Db         13 CCCTTAACCTAA 2


RESULT 229
ABC64742/c
ID   ABC64742 standard; DNA; 13 BP.
XX
AC   ABC64742;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 64759 for detecting SNP TSC0017075.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 64759; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 1 C; 3 G; 4 T; 0 U; 0 Other;
```

```
  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
              || |||||||||
Db         12 TTTACCAAACGT 1


RESULT 230
ABF25289
ID   ABF25289 standard; DNA; 13 BP.
XX
AC   ABF25289;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 125286 for detecting SNP TSC0031303.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 125286; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 5 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         59 CCTTAACCAAAC 70
              ||||||||| ||
Db          1 CCTTAACCATAC 12


RESULT 231
ABF82387
ID   ABF82387 standard; DNA; 13 BP.
XX
AC   ABF82387;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 182384 for detecting SNP TSC0045069.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 182384; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 4 C; 2 G; 5 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         24 TCGCTTCGCTCA 35
              ||||||||| |||
Db          1 TCGCTTCGTTCA 12


RESULT 232
ABH16937
ID   ABH16937 standard; DNA; 13 BP.
XX
AC   ABH16937;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 216914 for detecting SNP TSC0052718.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
```

```
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 216914; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 6 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         57 CCCCTTAACCAA 68
              || |||||||||
Db          2 CCTCTTAACCAA 13


RESULT 233
ABC90375
ID   ABC90375 standard; DNA; 13 BP.
XX
AC   ABC90375;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 90392 for detecting SNP TSC0022653.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 90392; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 6 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         57 CCCCTTAACCAA 68
              ||| ||||||||
Db          2 CCCATTAACCAA 13


RESULT 234
ABC92104/c
ID   ABC92104 standard; DNA; 13 BP.
XX
AC   ABC92104;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 92121 for detecting SNP TSC0023041.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 92121; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
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CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 0 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
              |||||||||| |
Db         12 TTAACCAAACTT 1


RESULT 235
ABF65343
ID   ABF65343 standard; DNA; 13 BP.
XX
AC   ABF65343;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 165340 for detecting SNP TSC0041467.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 165340; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 7 C; 1 G; 2 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         53 CCGGCCCCTTAA 64
              || |||||||||
Db          1 CCCGCCCCTTAA 12


RESULT 236
ABH16936/c
ID   ABH16936 standard; DNA; 13 BP.
XX
AC   ABH16936;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 216913 for detecting SNP TSC0052718.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 216913; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         57 CCCCTTAACCAA 68
              || |||||||||
Db         12 CCTCTTAACCAA 1


RESULT 237
ABC33109
ID   ABC33109 standard; DNA; 13 BP.
XX
AC   ABC33109;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 33126 for detecting SNP TSC0010560.
```

```
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 33126; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 5 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCAAA 69
              ||||||||| ||
Db          1 CCCTTAACCTAA 12


RESULT 238
ABC63143
ID   ABC63143 standard; DNA; 13 BP.
XX
AC   ABC63143;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 63160 for detecting SNP TSC0016688.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 63160; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 6 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCAAA 69
              ||||| ||||||
Db          1 CCCTTCACCAAA 12


RESULT 239
ABC90374/c
ID   ABC90374 standard; DNA; 13 BP.
XX
AC   ABC90374;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 90391 for detecting SNP TSC0022653.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 90391; 29pp + Sequence Listing; German.
```

```
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 6 G; 5 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         57 CCCCTTAACCAA 68
              ||| ||||||||
Db         12 CCCATTAACCAA 1


RESULT 240
ABC09254/c
ID   ABC09254 standard; DNA; 13 BP.
XX
AC   ABC09254;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 9245 for detecting SNP TSC0002453.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 9245; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 4 G; 7 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         59 CCTTAACCAAAC 70
              ||||||| ||||
Db         13 CCTTAACAAAAC 2


RESULT 241
ABC14136
ID   ABC14136 standard; DNA; 13 BP.
XX
AC   ABC14136;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 14143 for detecting SNP TSC0003223.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 14143; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 0 A; 3 C; 4 G; 6 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         20 TCGTTCGCTTCG 31
              ||||||| ||||
Db          1 TCGTTCGTTTCG 12


RESULT 242
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```
ABF52140/c
ID   ABF52140 standard; DNA; 13 BP.
XX
AC   ABF52140;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 152137 for detecting SNP TSC0038439.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 152137; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 1 C; 2 G; 6 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
              ||||| ||||||
Db         12 TTAACTAAACGT 1


RESULT 243
ABF82386/c
ID   ABF82386 standard; DNA; 13 BP.
XX
AC   ABF82386;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 182383 for detecting SNP TSC0045069.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 182383; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 2 C; 4 G; 2 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         24 TCGCTTCGCTCA 35
              |||||||| |||
Db         13 TCGCTTCGTTCA 2


RESULT 244
ABH56999
ID   ABH56999 standard; DNA; 13 BP.
XX
AC   ABH56999;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 256976 for detecting SNP TSC0006666.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
```

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XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 256976; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 5 C; 0 G; 4 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         59 CCTTAACCAAAC 70
               ||||| ||||||
Db          2 CCTTATCCAAAC 13


RESULT 245
ABH58909
ID   ABH58909 standard; DNA; 13 BP.
XX
AC   ABH58909;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 258886 for detecting SNP TSC0062914.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 258886; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 3 C; 1 G; 4 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
               |||||| |||||
Db          1 TTAACCTAACGT 12


RESULT 246
ABC18089
ID   ABC18089 standard; DNA; 13 BP.
XX
AC   ABC18089;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 18096 for detecting SNP TSC0003856.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 18096; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 2 C; 1 G; 4 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
```

```
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         62 TAACCAAACGTT 73
              ||| ||||||||
Db          1 TAAACAAACGTT 12


RESULT 247
ABC47936/c
ID   ABC47936 standard; DNA; 13 BP.
XX
AC   ABC47936;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 47953 for detecting SNP TSC0013726.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 47953; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
              |||||||||| |
Db         12 TTAACCAAACAT 1


RESULT 248
ABC51267
ID   ABC51267 standard; DNA; 13 BP.
XX
AC   ABC51267;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 51284 for detecting SNP TSC0014330.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 51284; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 3 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
              |||||| |||||
Db          1 TTAACCGAACGT 12


RESULT 249
ABF25288/c
ID   ABF25288 standard; DNA; 13 BP.
XX
AC   ABF25288;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 125285 for detecting SNP TSC0031303.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
```

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XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 125285; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          59 CCTTAACCAAAC 70
               |||||||||  ||
Db          13 CCTTAACCATAC 2


RESULT 250
ABF33591
ID   ABF33591 standard; DNA; 13 BP.
XX
AC   ABF33591;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 133588 for detecting SNP TSC0033315.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 133588; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 4 C; 1 G; 3 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy           7 CAACTGGTTCAA 18
               ||||| ||||||
Db           1 CAACTCGTTCAA 12


RESULT 251
ABC21100
ID   ABC21100 standard; DNA; 13 BP.
XX
AC   ABC21100;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 21117 for detecting SNP TSC0004267.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 21117; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
```

```
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 0 A; 3 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         20 TCGTTCGCTTCG 31
              ||||||| ||||
Db          1 TCGTTCGTTTCG 12


RESULT 252
ABC51266/c
ID   ABC51266 standard; DNA; 13 BP.
XX
AC   ABC51266;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 51283 for detecting SNP TSC0014330.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 51283; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 2 C; 3 G; 5 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
              |||||| |||||
Db         13 TTAACCGAACGT 2


RESULT 253
ABC92105
ID   ABC92105 standard; DNA; 13 BP.
XX
AC   ABC92105;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 92122 for detecting SNP TSC0023041.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 92122; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 3 C; 0 G; 4 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
              |||||||||| |
Db          2 TTAACCAAACTT 13


RESULT 254
ABF19399/c
ID   ABF19399 standard; DNA; 13 BP.
XX
AC   ABF19399;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 119396 for detecting SNP TSC0029810.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
```

```
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 119396; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 5 C; 2 G; 4 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         65 CCAAACGTTAGG 76
               | ||||||||||
Db         13 CGAAACGTTAGG 2


RESULT 255
ABC69220/c
ID   ABC69220 standard; DNA; 13 BP.
XX
AC   ABC69220;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 69237 for detecting SNP TSC0018011.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 69237; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 1 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
               | ||||||||||
Db         13 TAAACCAAACGT 2


RESULT 256
ABC21116/c
ID   ABC21116 standard; DNA; 13 BP.
XX
AC   ABC21116;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 21133 for detecting SNP TSC0004267.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 21133; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
```

```
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 3 C; 5 G; 0 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         20 TCGTTCGCTTCG 31
               ||| ||||||||
Db         13 TCGCTCGCTTCG 2


RESULT 257
ABC18088/c
ID   ABC18088 standard; DNA; 13 BP.
XX
AC   ABC18088;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 18095 for detecting SNP TSC0003856.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 18095; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 1 C; 2 G; 6 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         62 TAACCAAACGTT 73
               ||| ||||||||
Db         13 TAAACAAACGTT 2


RESULT 258
ABC21101/c
ID   ABC21101 standard; DNA; 13 BP.
XX
AC   ABC21101;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 21118 for detecting SNP TSC0004267.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 21118; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 3 C; 3 G; 0 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         20 TCGTTCGCTTCG 31
               ||||||| ||||
Db         13 TCGTTCGTTTCG 2


RESULT 259
ABC96706/c
ID   ABC96706 standard; DNA; 13 BP.
```

```
XX
AC   ABC96706;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 96723 for detecting SNP TSC0024023.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 96723; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 1 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          61 TTAACCAAACGT 72
               ||||||| |||||
Db          13 TTAACCCAACGT 2


RESULT 260
ABC14137/c
ID   ABC14137 standard; DNA; 13 BP.
XX
AC   ABC14137;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 14144 for detecting SNP TSC0003223.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 14144; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 4 C; 3 G; 0 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          20 TCGTTCGCTTCG 31
               ||||||| ||||
Db          13 TCGTTCGTTTCG 2


RESULT 261
ABC21117
ID   ABC21117 standard; DNA; 13 BP.
XX
AC   ABC21117;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 21134 for detecting SNP TSC0004267.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
```

```
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 21134; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 0 A; 5 C; 3 G; 5 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         20 TCGTTCGCTTCG 31
               ||| ||||||||
Db          1 TCGCTCGCTTCG 12


RESULT 262
ABC96707
ID   ABC96707 standard; DNA; 13 BP.
XX
AC   ABC96707;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 96724 for detecting SNP TSC0024023.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 96724; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 4 C; 1 G; 3 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
               |||||| |||||
Db          1 TTAACCCAACGT 12


RESULT 263
ABC01742/c
ID   ABC01742 standard; DNA; 13 BP.
XX
AC   ABC01742;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 1733 for detecting SNP TSC0000635.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 1733; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;
```

```
Qy          61 TTAACCAAACGT 72
               ||||||||||  |
Db          13 TTAACCAAACAT 2


RESULT 264
ABF33590/c
ID   ABF33590 standard; DNA; 13 BP.
XX
AC   ABF33590;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 133587 for detecting SNP TSC0033315.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 133587; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 1 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy           7 CAACTGGTTCAA 18
               ||||| ||||||
Db          13 CAACTCGTTCAA 2


RESULT 265
ABF52141
ID   ABF52141 standard; DNA; 13 BP.
XX
AC   ABF52141;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 152138 for detecting SNP TSC0038439.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 152138; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 2 C; 1 G; 4 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          61 TTAACCAAACGT 72
               |||||  ||||||
Db           2 TTAACTAAACGT 13


RESULT 266
ABC01743
ID   ABC01743 standard; DNA; 13 BP.
XX
AC   ABC01743;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 1734 for detecting SNP TSC0000635.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
```

```
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 1734; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 3 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
              ||||||||||  |
Db          1 TTAACCAAACAT 12


RESULT 267
ABC09255
ID   ABC09255 standard; DNA; 13 BP.
XX
AC   ABC09255;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 9246 for detecting SNP TSC0002453.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 9246; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 4 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         59 CCTTAACCAAAC 70
              ||||||| ||||
Db          1 CCTTAACAAAAC 12


RESULT 268
ABH58714
ID   ABH58714 standard; DNA; 13 BP.
XX
AC   ABH58714;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 258691 for detecting SNP TSC0005757.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 258691; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
```

```
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 0 A; 3 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         20 TCGTTCGCTTCG 31
               ||||||| ||||
Db          2 TCGTTCGTTTCG 13


RESULT 269
ABC92568/c
ID   ABC92568 standard; DNA; 13 BP.
XX
AC   ABC92568;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 92585 for detecting SNP TSC0023147.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 92585; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 0 C; 7 G; 2 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         27 CTTCGCTCACTC 38
               |||| |||||||
Db         12 CTTCACTCACTC 1


RESULT 270
ABC47937
ID   ABC47937 standard; DNA; 13 BP.
XX
AC   ABC47937;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 47954 for detecting SNP TSC0013726.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 47954; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 3 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
               |||||||||| |
Db          2 TTAACCAAACAT 13


RESULT 271
ABC53521
ID   ABC53521 standard; DNA; 13 BP.
XX
AC   ABC53521;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 53538 for detecting SNP TSC0014771.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
```

```
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 53538; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 5 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
              ||||||||||  |
Db          1 TTAACCAAACCT 12


RESULT 272
ABF06462/c
ID   ABF06462 standard; DNA; 13 BP.
XX
AC   ABF06462;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 106459 for detecting SNP TSC0026684.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 106459; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 0 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCAAA 69
              ||||||||  |||
Db         13 CCCTTAACTAAA 2


RESULT 273
ABC64743
ID   ABC64743 standard; DNA; 13 BP.
XX
AC   ABC64743;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 64760 for detecting SNP TSC0017075.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 64760; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
```

```
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 3 C; 1 G; 5 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
              || ||||||||||
Db          2 TTTACCAAACGT 13


RESULT 274
ABF52144/c
ID   ABF52144 standard; DNA; 13 BP.
XX
AC   ABF52144;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 152141 for detecting SNP TSC0038439.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 152141; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 2 C; 3 G; 5 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
              |||||| |||||
Db         12 TTAACCGAACGT 1


RESULT 275
ABH58715/c
ID   ABH58715 standard; DNA; 13 BP.
XX
AC   ABH58715;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 258692 for detecting SNP TSC0005757.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 258692; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 3 C; 3 G; 0 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         20 TCGTTCGCTTCG 31
              ||||||| ||||
Db         12 TCGTTCGTTTCG 1


RESULT 276
ABF52145
ID   ABF52145 standard; DNA; 13 BP.
XX
AC   ABF52145;
```

```
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 152142 for detecting SNP TSC0038439.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 152142; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 3 C; 2 G; 3 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAACGT 72
              |||||| |||||
Db          2 TTAACCGAACGT 13


RESULT 277
ABC63142/c
ID   ABC63142 standard; DNA; 13 BP.
XX
AC   ABC63142;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 63159 for detecting SNP TSC0016688.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 63159; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCAAA 69
              ||||| ||||||
Db         13 CCCTTCACCAAA 2


RESULT 278
ABH06402/c
ID   ABH06402 standard; DNA; 13 BP.
XX
AC   ABH06402;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 206379 for detecting SNP TSC0050529.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
```

PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 206379; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation. ABC00010
CC -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC represent the oligomers described in the invention. NOTE: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 13 BP; 3 A; 0 C; 4 G; 6 T; 0 U; 0 Other;

Query Match 13.5%; Score 10.4; DB 1; Length 13;
Best Local Similarity 91.7%; Pred. No. 1.6e+02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 62 TAACCAAACGTT 73
||||||||| ||
Db 12 TAACCAAACCTT 1

RESULT 279
ABH06403
ID ABH06403 standard; DNA; 13 BP.
XX
AC ABH06403;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 206380 for detecting SNP TSC0050529.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 206380; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation. ABC00010
CC -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC represent the oligomers described in the invention. NOTE: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 13 BP; 6 A; 4 C; 0 G; 3 T; 0 U; 0 Other;

Query Match 13.5%; Score 10.4; DB 1; Length 13;
Best Local Similarity 91.7%; Pred. No. 1.6e+02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 62 TAACCAAACGTT 73
||||||||| ||
Db 2 TAACCAAACCTT 13

RESULT 280
ABH56998/c
ID ABH56998 standard; DNA; 13 BP.
XX
AC ABH56998;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 256975 for detecting SNP TSC0006666.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 256975; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation. ABC00010
CC -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC represent the oligomers described in the invention. NOTE: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 13 BP; 4 A; 0 C; 5 G; 4 T; 0 U; 0 Other;

Query Match 13.5%; Score 10.4; DB 1; Length 13;
Best Local Similarity 91.7%; Pred. No. 1.6e+02;
Matches 11; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 59 CCTTAACCAAAC 70
||||| ||||||

```
Db         12 CCTTATCCAAAC 1


RESULT 281
ABF65342/c
ID   ABF65342 standard; DNA; 13 BP.
XX
AC   ABF65342;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 165339 for detecting SNP TSC0041467.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 165339; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 1 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         53 CCGGCCCCTTAA 64
              || |||||||||
Db         13 CCCGCCCCTTAA 2


RESULT 282
ABC92569
ID   ABC92569 standard; DNA; 13 BP.
XX
AC   ABC92569;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 92586 for detecting SNP TSC0023147.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 92586; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 7 C; 0 G; 4 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         27 CTTCGCTCACTC 38
              |||| |||||||
Db          2 CTTCACTCACTC 13


RESULT 283
ABC69221
ID   ABC69221 standard; DNA; 13 BP.
XX
AC   ABC69221;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 69238 for detecting SNP TSC0018011.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
```

```
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 69238; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 3 C; 1 G; 2 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          61 TTAACCAAACGT 72
               | ||||||||||
Db           1 TAAACCAAACGT 12


RESULT 284
ABC53520/c
ID   ABC53520 standard; DNA; 13 BP.
XX
AC   ABC53520;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 53537 for detecting SNP TSC0014771.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 53537; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          61 TTAACCAAACGT 72
               ||||||||||| |
Db          13 TTAACCAAACCT 2


RESULT 285
ABC40686/c
ID   ABC40686 standard; DNA; 13 BP.
XX
AC   ABC40686;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 40703 for detecting SNP TSC0012310.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 40703; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
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```
SQ   Sequence 13 BP; 4 A; 0 C; 3 G; 5 T; 0 U; 1 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         62 TAACCAAACGTT 73
              ||||||||| ||
Db         12 TAACCAAACTTT 1


RESULT 286
ABC40687
ID   ABC40687 standard; DNA; 13 BP.
XX
AC   ABC40687;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 40704 for detecting SNP TSC0012310.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 40704; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 3 C; 0 G; 4 T; 0 U; 1 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         62 TAACCAAACGTT 73
              ||||||||| ||
Db          2 TAACCAAACTTT 13


RESULT 287
ABF19398
ID   ABF19398 standard; DNA; 13 BP.
XX
AC   ABF19398;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 119395 for detecting SNP TSC0029810.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 119395; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 2 C; 5 G; 2 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         65 CCAAACGTTAGG 76
              | ||||||||||
Db          1 CGAAACGTTAGG 12


RESULT 288
ABH58908/c
ID   ABH58908 standard; DNA; 13 BP.
XX
AC   ABH58908;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 258885 for detecting SNP TSC0062914.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
```

```
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 258885; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 1 C; 3 G; 5 T; 0 U; 0 Other;

  Query Match             13.5%;  Score 10.4;  DB 1;  Length 13;
  Best Local Similarity   91.7%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          61 TTAACCAAACGT 72
               |||||| |||||
Db          13 TTAACCTAACGT 2


RESULT 289
AAZ44979/c
ID   AAZ44979 standard; DNA; 31 BP.
XX
AC   AAZ44979;
XX
DT   16-MAY-2000  (first entry)
XX
DE   P. alcaligenes repeat (PAR) element DNA #86.
XX
KW   Diversity-selected gene; restriction enzyme; adhesin; toxin;
KW   detoxifying enzyme; repeat element; PAR; ss.
XX
OS   Pseudomonas alcaligenes.
XX
PN   WO9964632-A1.
XX
PD   16-DEC-1999.
XX
PF   11-JUN-1999;   99WO-US013295.
XX
PR   12-JUN-1998;   98US-0089086P.
PR   12-JUN-1998;   98US-0089101P.
XX
PA   (NEWE ) NEW ENGLAND BIOLABS INC.
XX
PI   Raleigh EA,  Vaisvila R,  Morgan RD;
XX
DR   WPI; 2000-116558/10.
XX
PT   Cloning intact genes used to isolate genes for restriction enzymes.
XX
PS   Claim 10; Page 62; 97pp; English.
XX
CC   This invention describes a novel method for cloning intact, diversity-
CC   selected genes (I) from within gene cassettes (GC) which comprises
CC   identifying DNA repeats that flank GC, hybridizing oligonucleotides (ON)
CC   to these repeats and amplification to produce DNA fragments containing
CC   (I), ligating these fragments into a vector and transforming cells with
CC   the vector. This method is used to clone a wide variety of prokaryotic
CC   genes that provide a selective advantage under particular conditions,
CC   particularly those that encode restriction enzymes (used as reagents in
CC   molecular biology); adhesins (for use in coating or for targeting
CC   molecules or organisms to particular sites, e.g. for competitive
CC   exclusion of a selected pathogen); detoxifying enzymes; toxins that
CC   interact with a host, e.g. for synthesis of inhibitors or antagonists of
CC   the toxin, or in vaccination, or a modification methyltransferase. Intact
CC   genes can be cloned directly with a high probability that the orientation
CC   of expression is known in advance and low probability of association with
CC   extraneous, possibly toxic, genes. AAZ44894-Z44980 represent the
CC   Pseudomonas alcaligenes repeat (PAR) elements described in the method of
CC   the invention
XX
SQ   Sequence 31 BP; 8 A; 10 C; 6 G; 7 T; 0 U; 0 Other;

  Query Match             13.2%;  Score 10.2;  DB 1;  Length 31;
  Best Local Similarity   80.0%;  Pred. No. 3.4e+02;
  Matches   12;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          39 GGGACCGGCTAAAGC 53
               ||| ||| ||| |||
Db          16 GGGGCCGTCTAGAGC 2


RESULT 290
AAZ84854
ID   AAZ84854 standard; DNA; 10 BP.
XX
AC   AAZ84854;
XX
DT   07-APR-2000  (first entry)
XX
DE   Metastatic breast tumour cell downregulated transcript tag #4088.
XX
KW   Human; metastatic breast tumour tissue; breast cancer; tag; primer;
KW   non-metastatic breast tumour tissue; gene therapy; anticancer;
KW   antimetastatic; vaccine; diagnosis; ss.
XX
OS   Homo sapiens.
XX
PN   WO9965928-A2.
XX
PD   23-DEC-1999.
XX
PF   18-JUN-1999;   99WO-US013647.
XX
PR   19-JUN-1998;   98US-0089853P.
PR   19-JUN-1998;   98US-0089997P.
PR   19-JUN-1998;   98US-0090039P.
PR   19-JUN-1998;   98US-0090040P.
PR   19-JUN-1998;   98US-0090041P.
XX
PA   (GENZ ) GENZYME CORP.
PA   (ROBE/) ROBERTS B L.
PA   (SHAN/) SHANKARA S.
XX
PI   Roberts BL,  Shankara S;
XX
DR   WPI; 2000-106079/09.
XX
PT   Isolated polynucleotides differentially expressed between metastatic and
```

PT non-metastatic breast cancer cells, useful for diagnosis, prevention and
PT treatment of cancer.
XX
PS Claim 1; Page 167; 219pp; English.
XX
CC AAZ80767 to AAZ83941 represent tags corresponding to distinct transcripts
CC that are preferentially transcribed in the metastatic breast tumour
CC tissue (i.e. are upregulated in metastatic breast tumour cells). AAZ83942
CC to AAZ86677 represent tags corresponding to distinct transcripts that are
CC preferentially transcribed in the primary or non-metastatic breast tumour
CC tissue (i.e. are downregulated in metastatic breast tumour cells). These
CC transcripts can be used for diagnosis, prognosis, monitoring and
CC treatment of breast cancer, particularly where metastatic. Diagnosis is
CC by standard immunoassays or hybridisation/amplification reactions.
CC Compounds that modulate expression of the transcripts are potentially
CC useful for treatment of (metastatic) breast cancer, while promoters from
CC the transcripts are used to direct expression, in selected cell types, of
CC e.g. therapeutic genes (also ribozymes or antisense sequences),
CC particularly an antigen-encoding sequence for use in gene or cell-based
CC vaccines. Polypeptides encoded by the transcripts are also useful in
CC vaccines; for diagnosing breast cancer and for raising specific
CC antibodies (Ab). Ab are used to detect the polypeptides or as therapeutic
CC agents. Host cells that produce the polypeptides can be used to expand
CC and isolate populations of educated, antigen-specific immune effecter
CC cells, e.g. cytotoxic T lymphocytes, and these used for adoptive
CC immunotherapy
XX
SQ Sequence 10 BP; 2 A; 5 C; 3 G; 0 T; 0 U; 0 Other;

Query Match 13.0%; Score 10; DB 1; Length 10;
Best Local Similarity 100.0%; Pred. No. 1.3e+02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 50 AAGCCGGCCC 59
||||||||||
Db 1 AAGCCGGCCC 10

RESULT 291
AAF36947/c
ID AAF36947 standard; DNA; 10 BP.
XX
AC AAF36947;
XX
DT 23-MAR-2001 (first entry)
XX
DE Yeast NORF gene SAGE tag oligonucleotide SEQ ID NO:3686.
XX
KW Yeast; Saccharomyces cerevisiae; characterisation; cell cycle; NORF;
KW nor previously assigned open reading frame; nonannotated ORF; SAGE;
KW serial analysis of gene expression; antifungal; tag; identification;
KW linker; PCR primer; ds.
XX
OS Saccharomyces cerevisiae.
XX
PN WO200077214-A2.
XX
PD 21-DEC-2000.
XX
PF 14-JUN-2000; 2000WO-US016223.
XX
PR 16-JUN-1999; 99US-00335032.
XX
PA (UYJO) UNIV JOHNS HOPKINS.
XX
PI Velculescu V, Vogelstein B, Kinzler K;
XX
DR WPI; 2001-061874/07.
XX
PT Yeast gene coding sequences comprising NORF genes with serial analysis of
PT gene expression (SAGE) tags, useful for studying, monitoring and
PT affecting phases of the cell cycle.
XX
PS Example; Page 131; 419pp; English.
XX
CC The present invention describes an isolated DNA molecule comprising a
CC coding sequence of a yeast gene selected from a group of 745 NORF (not
CC previously assigned open reading frame; or nonannotated ORF) genes
CC comprising a SAGE (serial analysis of gene expression) tag. Also
CC described are: (1) a method (M1) of using NORF genes to affect the cell
CC cycle comprising administering a NORF gene whose expression varies by at
CC least 10% between any two phases of the cell cycle selected from log
CC phase, S phase and G2/M; (2) a method (M2) for screening candidate
CC antifungal drugs comprising: (a) contacting a test substance with a yeast
CC cell; and (b) monitoring expression of a NORF gene whose expression
CC varies as in M1, where a test substance which modifies the expression of
CC the yeast gene is a candidate antifungal drug; (3) a method (M3) for
CC identifying human genes which are involved in cell cycle progression
CC comprising contacting human DNA with a probe which comprises at least 10
CC contiguous nucleotides of a NORF gene whose expression varies as in M1;
CC and (4) a method (M4) for identifying a candidate drug as a member of a
CC class of drugs having a characteristic effect on gene expression in a
CC yeast cell comprising contacting a yeast cell with a candidate drug and
CC monitoring expression in the yeast cell of at least 1 NORF gene whose
CC expression is affected by the class of drugs. The NORF genes may be used
CC to study, monitor and affect phases of the cell cycle, the differentially
CC expressed genes may be used as markers of phases of the cell cycle. The
CC methods may be used to identify candidate drugs which affect the cell
CC cycle and for identification of antifungal drugs. AAF33268 to AAF44064
CC represent SAGE tags used in the exemplification of the present invention.
CC AAF33262 to AAF33267 represent linkers and PCR primers used in the SAGE
CC method, in the exemplification of the present invention
XX
SQ Sequence 10 BP; 4 A; 2 C; 2 G; 2 T; 0 U; 0 Other;

Query Match 13.0%; Score 10; DB 1; Length 10;
Best Local Similarity 100.0%; Pred. No. 1.3e+02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 15 TCAAGTCGTT 24
||||||||||
Db 10 TCAAGTCGTT 1

RESULT 292
ABV99804
ID ABV99804 standard; DNA; 10 BP.
XX
AC ABV99804;
XX
DT 24-FEB-2003 (first entry)
XX
DE Human PFKFB2 PCR primer #6.
XX
KW Human; 6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 2; PFKFB2;
KW cytostatic; antidiabetic; gene therapy; cancer; diabetes; ss; PCR;
KW primer; polymorphism.
XX
OS Homo sapiens.
XX
PN WO200194363-A2.
XX
PD 13-DEC-2001.
XX
PF 07-JUN-2001; 2001WO-US018458.
XX
PR 07-JUN-2000; 2000US-0209935P.
XX
PA (GENA-) GENAISSANCE PHARM INC.
XX
PI Duda A, Kazemi A, Koshy B;
XX
DR WPI; 2002-566434/60.
XX
PT New 6-phosphofruoto-2-kinase/fructose-2,6-bisphosphatase 2 (PFKFB2) gene
PT variants, for improving efficiency and reliability in the development of

PT drugs for treating diseases associated with PFKFB2 activity e.g. cancer.
XX
PS Claim 17; Page 13; 95pp; English.
XX
CC The invention relates to a novel human 6-phosphofructo-2-kinase/ fructose
CC -2,6-biphosphatase 2 (PFKFB2) isogene. The PFKFB2 of the invention has
CC cytostatic and antidiabetic activity. The polynucleotides may have a use
CC in gene therapy. The identified candidate agents targeting PFKFB2, are
CC useful for treating cancer and diabetes. The methods of the invention are
CC useful for improving the efficiency and reliability of several steps in
CC the discovery and development of drugs for treating diseases associated
CC with PFKFB2 activity. The present sequence represents a PCR primer used
CC in the invention to detect PFKFB2 gene polymorphisms by primer extension
XX
SQ Sequence 10 BP; 1 A; 4 C; 5 G; 0 T; 0 U; 0 Other;

Query Match 13.0%; Score 10; DB 1; Length 10;
Best Local Similarity 100.0%; Pred. No. 1.3e+02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 38 CGGGACCGGC 47
||||||||||
Db 1 CGGGACCGGC 10

RESULT 293
AAV40923
ID AAV40923 standard; DNA; 11 BP.
XX
AC AAV40923;
XX
DT 25-SEP-1998 (first entry)
XX
DE Primer E2A:1960L11 for abnormality detection.
XX
KW PCR primer; chromosomal abnormality; abnormality detection; leukaemia;
KW lymphoma; carcinoma; adenocarcinoma; sarcoma; glioma; neuroblastoma;
KW medullablastoma; malignant melanoma; malignant neoplastic condition; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO9824928-A2.
XX
PD 11-JUN-1998.
XX
PF 08-DEC-1997; 97WO-DK000556.
XX
PR 06-DEC-1996; 96DK-00001401.
XX
PA (PALL/) PALLISGAARD N.
XX
PI Pallisgaard N, Hokland P;
XX
DR WPI; 1998-333344/29.
XX
PT Detection of chromosomal abnormalities - by subjecting patient sample
PT nucleic acids to a multiplex molecular amplification procedure using
PT primers specific for characteristic nucleic acid sequence.
XX
PS Claim 73; Page 66; 126pp; English.
XX
CC This sequence represents a primer used in the method of the invention for
CC the detection of the presence or absence of chromosomal abnormalities,
CC each abnormality being associated with a condition in a subject and each
CC being defined by at least one characteristic nucleic acid sequence. The
CC method comprises: (a) obtaining a sample of nucleic acids derived from a
CC subject which may harbour one of the chromosomal abnormalities; (b)
CC subjecting the sample to a multiplex molecular amplification (MMA)
CC procedure, where a number of the characteristic sequences, if present in
CC a sufficient amount, will be amplified; (c) retrieving the product(s)
CC from step (b), and detecting the presence and/or absence of an amplicon
CC characteristic of the abnormal sequences to detect the presence or
CC absence of corresponding chromosomal abnormalities; where the MMA
CC procedure comprises the use of at least 7 mutually distinct primers (MDP)
CC in one single reaction mixture, each of the primers defining an end of at
CC least one characteristic nucleic acid sequence, and where at least one of
CC the primers defines the first end of at least two characteristic nucleic
CC acid sequences, the characteristic nucleic acid sequences each being
CC determined in their opposite ends by MDP selected from the remainder of
CC the MDP. The methods can be used for detecting chromosomal abnormalities
CC associated with diseases including numerous leukaemia's, lymphoma's,
CC carcinoma's, adenocarcinoma's, sarcoma's, glioma's, neuroblastoma's,
CC medullablastoma, malignant melanoma, and malignant neoplastic conditions
XX
SQ Sequence 11 BP; 1 A; 4 C; 3 G; 3 T; 0 U; 0 Other;

Query Match 13.0%; Score 10; DB 1; Length 11;
Best Local Similarity 100.0%; Pred. No. 1.5e+02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 26 GCTTCGCTCA 35
||||||||||
Db 1 GCTTCGCTCA 10

RESULT 294
ABV67424
ID ABV67424 standard; cDNA; 11 BP.
XX
AC ABV67424;
XX
DT 21-OCT-2002 (first entry)
XX
DE Human skin EST 5210.
XX
KW Human; skin; dermatological; vulnerary; antipsoriatic; antiseborrhaeic;
KW immunosuppressive; antiinflammatory; cytostatic; SAGE; neurodermatitis;
KW psoriasis; dermatitis; skin cancer; EST; expressed sequence tag; ss.
XX
OS Homo sapiens.
XX
PN WO200253774-A2.
XX
PD 11-JUL-2002.
XX
PF 20-DEC-2001; 2001WO-EP015179.
XX
PR 03-JAN-2001; 2001DE-01000127.
XX
PA (HENK) HENKEL KGAA.
XX
PI Petersohn D, Conradt M, Hofmann K;
XX
DR WPI; 2002-590638/63.
XX
PT In vitro identification of skin-expressed genes, useful for determining
PT homeostasis and identifying cosmetic or pharmaceutical agents against
PT e.g. skin cancer.
XX
PS Disclosure; Page 169; 1345pp; German.
XX
CC The invention relates to in vitro identification (M1) of genes expressed
CC in the skin of humans or animals by subjecting a mixture of genetically
CC encoded factors from skin, to serial analysis of gene expression (SAGE)
CC so as to identify skin-expressed genes and quantify their expression.
CC (M1) is useful for identifying genes involved in skin homeostasis; to
CC determine skin homeostasis and to test agent (A) that maintains or
CC promotes skin homeostasis or that can be used for treating skin
CC disorders, specifically neurodermatitis; sunburn; psoriasis; scleroderma;
CC ichthyosis; atopic dermatitis; acne; seborrhea; lupus erythematosus;
CC rosacea; melanoma; basal cell carcinoma; and carcinoma or sarcoma of the
CC skin. The present sequence is that of a human expressed sequence tag
CC (EST) of the invention
XX
SQ Sequence 11 BP; 2 A; 3 C; 2 G; 4 T; 0 U; 0 Other;

```
  Query Match             13.0%;  Score 10;  DB 1;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 1.5e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          7 CAACTGGTTC 16
              ||||||||||
Db          2 CAACTGGTTC 11


RESULT 295
ADQ33879
ID   ADQ33879 standard; DNA; 11 BP.
XX
AC   ADQ33879;
XX
DT   23-SEP-2004  (first entry)
XX
DE   Human facial skin-associated DNA fragment SEQ ID NO 1969.
XX
KW   facial skin; human; serial analysis of gene expression; SAGE;
KW   homeostasis; biochip; cosmetic; pharmaceutical; ds.
XX
OS   Homo sapiens.
XX
PN   DE10260928-A1.
XX
PD   08-JUL-2004.
XX
PF   20-DEC-2002; 2002DE-01060928.
XX
PR   20-DEC-2002; 2002DE-01060928.
XX
PA   (HENK ) HENKEL KGAA.
XX
PI   Petersohn D,  Schlotmann K,  Gassenmeier T,  Holtkoetter O;
PI   Conradt M,  Hofmann K;
XX
DR   WPI; 2004-518855/50.
XX
PT   In vitro identification of genes important for facial skin, useful for
PT   assessing homeostasis and in screening for pharmaceutical or cosmetic
PT   agents, based on differential expression analysis.
XX
PS   Claim 5; SEQ ID NO 1969; 577pp; German.
XX
CC   This invention describes a novel in vitro method for identifying genes
CC   that are significant for facial skin in humans. The method comprises
CC   recovering, from facial skin, a first mixture of genetically expressed
CC   (transcribed and optionally translated) factors (i.e. proteins, mRNA or
CC   their fragments), recovering a second, similar mixture from some other
CC   human tissue, preferably skin from a protected area, especially from the
CC   breast and subjecting the mixtures to serial analysis of gene expression
CC   (SAGE) to identify those genes for which expression is markedly different
CC   between facial skin and the other tissue. The invention also describes an
CC   in vitro method for determining homeostasis of human facial skin; a test
CC   kit which comprises a solid support (flexible or rigid) on which are
CC   immobilised probes that bind specifically to the factors of interest and
CC   a biochip for determining homeostasis of human facial skin. The products
CC   of the invention are also used in a method which determines activity of
CC   cosmetic and pharmaceutical agents for use against disorders or
CC   disturbances of the homeostasis of human skin and a screening method for
CC   identifying cosmetic and pharmaceutical agents. The method allows
CC   identification of as many as possible of the genes important for facial
CC   skin and thus of a very wide range of potential therapeutic and cosmetic
CC   agents. ADQ31911-ADQ35111 represent human DNA Tag fragments used to
CC   identify the facial skin-associated genes described in the invention.
XX
SQ   Sequence 11 BP; 2 A; 3 C; 2 G; 4 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 1.5e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          7 CAACTGGTTC 16
              ||||||||||
Db          2 CAACTGGTTC 11


RESULT 296
ABI09737/c
ID   ABI09737 standard; DNA; 12 BP.
XX
AC   ABI09737;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 309710 for detecting SNP TSC0023629.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 309710; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 3 A; 0 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db         11 TTAACCAAAC 2


RESULT 297
ABI65343/c
ID   ABI65343 standard; DNA; 12 BP.
XX
AC   ABI65343;
XX
DT   22-FEB-2002  (first entry)
```

```
XX
DE   Oligonucleotide primer SEQ ID NO 365316 for detecting SNP TSC0055041.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 365316; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 3 A; 0 C; 3 G; 6 T; 0 U; 0 Other;,

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db         10 TTAACCAAAC 1


RESULT 298
ABI45658
ID   ABI45658 standard; DNA; 12 BP.
XX
AC   ABI45658;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 345631 for detecting SNP TSC0044116.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 345631; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 7 A; 4 C; 0 G; 1 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db          3 ACCTAACAAC 12


RESULT 299
ABI59784/c
ID   ABI59784 standard; DNA; 12 BP.
XX
AC   ABI59784;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 359757 for detecting SNP TSC0051738.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
```

```
XX
PS   Claim 1; SEQ ID NO 359757; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 3 A; 0 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 CCTTAACCAA 68
              ||||||||||
Db         10 CCTTAACCAA 1


RESULT 300
ABI17394/c
ID   ABI17394 standard; DNA; 12 BP.
XX
AC   ABI17394;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 317367 for detecting SNP TSC0027954.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 317367; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 3 A; 0 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAA 69
              ||||||||||
Db         12 CTTAACCAAA 3


RESULT 301
ABI03395
ID   ABI03395 standard; DNA; 12 BP.
XX
AC   ABI03395;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 303368 for detecting SNP TSC0020451.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 303368; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 7 A; 3 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db          3 TTAACCAAAC 12
```

```
RESULT 302
ABI05541
ID   ABI05541 standard; DNA; 12 BP.
XX
AC   ABI05541;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 305514 for detecting SNP TSC0021475.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 305514; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 5 A; 5 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACT 11
              ||||||||||
Db          3 CCTAACAACT 12


RESULT 303
ABH85762/c
ID   ABH85762 standard; DNA; 12 BP.
XX
AC   ABH85762;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 285755 for detecting SNP TSC0012418.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 285755; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 1 A; 1 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         63 AACCAAACGT 72
              ||||||||||
Db         11 AACCAAACGT 2


RESULT 304
ABI54105
ID   ABI54105 standard; DNA; 12 BP.
XX
AC   ABI54105;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 354078 for detecting SNP TSC0048891.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
```

```
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 354078; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 5 A; 3 C; 0 G; 4 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db          2 TTAACCAAAC 11


RESULT 305
ABI19658/c
ID   ABI19658 standard; DNA; 12 BP.
XX
AC   ABI19658;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 319631 for detecting SNP TSC0029333.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 319631; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 2 A; 0 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db         10 ACCTAACAAC 1


RESULT 306
ABH86118
ID   ABH86118 standard; DNA; 12 BP.
XX
AC   ABH86118;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 286111 for detecting SNP TSC0012585.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 286111; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 6 A; 3 C; 0 G; 3 T; 0 U; 0 Other;
```

```
  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps   0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db          1 TTAACCAAAC 10


RESULT 307
ABI38806/c
ID   ABI38806 standard; DNA; 12 BP.
XX
AC   ABI38806;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 338779 for detecting SNP TSC0040670.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 338779; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 3 A; 0 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db         12 TTAACCAAAC 3


RESULT 308
ABI59211
ID   ABI59211 standard; DNA; 12 BP.
XX
AC   ABI59211;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 359184 for detecting SNP TSC0051496.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 359184; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 6 A; 3 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db          3 TTAACCAAAC 12


RESULT 309
ABI43165/c
ID   ABI43165 standard; DNA; 12 BP.
XX
AC   ABI43165;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 343138 for detecting SNP TSC0004795.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
```

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XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 343138; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 2 A; 0 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db         10 TTAACCAAAC 1


RESULT 310
ABI59785/c
ID   ABI59785 standard; DNA; 12 BP.
XX
AC   ABI59785;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 359758 for detecting SNP TSC0051738.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 359758; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 3 A; 1 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 CCTTAACCAA 68
              ||||||||||
Db         10 CCTTAACCAA 1


RESULT 311
ABI63788/c
ID   ABI63788 standard; DNA; 12 BP.
XX
AC   ABI63788;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 363761 for detecting SNP TSC0054045.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 363761; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
```

```
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 3 A; 0 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAA 69
              ||||||||||
Db         12 CTTAACCAAA 3


RESULT 312
ABH79977/c
ID   ABH79977 standard; DNA; 12 BP.
XX
AC   ABH79977;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 279970 for detecting SNP TSC0007985.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 279970; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 3 A; 0 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db         10 TTAACCAAAC 1


RESULT 313
ABH84854
ID   ABH84854 standard; DNA; 12 BP.
XX
AC   ABH84854;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 284847 for detecting SNP TSC0012028.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 284847; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 6 A; 3 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db          2 TTAACCAAAC 11


RESULT 314
ABH88716
ID   ABH88716 standard; DNA; 12 BP.
XX
AC   ABH88716;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 288709 for detecting SNP TSC0013639.
```

```
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 288709; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 5 A; 4 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAA 69
              ||||||||||
Db          1 CTTAACCAAA 10


RESULT 315
ABI64791/c
ID   ABI64791 standard; DNA; 12 BP.
XX
AC   ABI64791;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 364764 for detecting SNP TSC0054705.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 364764; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 2 A; 0 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db         11 TTAACCAAAC 2


RESULT 316
ABI02552
ID   ABI02552 standard; DNA; 12 BP.
XX
AC   ABI02552;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 302525 for detecting SNP TSC0020048.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 302525; 29pp + Sequence Listing; German.
```

```
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 2 A; 7 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         57 CCCCTTAACC 66
              ||||||||||
Db          2 CCCCTTAACC 11


RESULT 317
ABI23793/c
ID   ABI23793 standard; DNA; 12 BP.
XX
AC   ABI23793;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 323766 for detecting SNP TSC0031594.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 323766; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 3 A; 0 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACT 11
              ||||||||||
Db         11 CCTAACAACT 2


RESULT 318
ABI30774
ID   ABI30774 standard; DNA; 12 BP.
XX
AC   ABI30774;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 330747 for detecting SNP TSC0035716.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 330747; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 5 A; 3 C; 0 G; 4 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAA 69
              ||||||||||
Db          3 CTTAACCAAA 12


RESULT 319
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```
ABI50579/c
ID   ABI50579 standard; DNA; 12 BP.
XX
AC   ABI50579;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 350552 for detecting SNP TSC0046746.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 350552; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 1 A; 0 C; 5 G; 6 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db         10 ACCTAACAAC 1


RESULT 320
ABI73588
ID   ABI73588 standard; DNA; 12 BP.
XX
AC   ABI73588;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 373561 for detecting SNP TSC0060170.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 373561; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 4 A; 6 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACT 11
              ||||||||||
Db          1 CCTAACAACT 10


RESULT 321
ABI31939
ID   ABI31939 standard; DNA; 12 BP.
XX
AC   ABI31939;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 331912 for detecting SNP TSC0036584.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
```

```
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 331912; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 6 A; 4 C; 1 G; 1 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          62 TAACCAAACG 71
               ||||||||||
Db           2 TAACCAAACG 11


RESULT 322
ABI12963/c
ID   ABI12963 standard; DNA; 12 BP.
XX
AC   ABI12963;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 312936 for detecting SNP TSC0025379.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 312936; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 2 A; 0 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          60 CTTAACCAAA 69
               ||||||||||
Db          11 CTTAACCAAA 2


RESULT 323
ABI30959/c
ID   ABI30959 standard; DNA; 12 BP.
XX
AC   ABI30959;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 330932 for detecting SNP TSC0035850.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 330932; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 1 A; 1 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
```

```
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         62 TAACCAAACG 71
              ||||||||||
Db         11 TAACCAAACG 2


RESULT 324
ABH99100
ID   ABH99100 standard; DNA; 12 BP.
XX
AC   ABH99100;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 299093 for detecting SNP TSC0018429.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 299093; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 4 A; 5 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACT 11
              ||||||||||
Db          2 CCTAACAACT 11


RESULT 325
ABH77029/c
ID   ABH77029 standard; DNA; 12 BP.
XX
AC   ABH77029;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 277022 for detecting SNP TSC0004361.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 277022; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
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CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 2 A; 0 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db         12 ACCTAACAAC 3


RESULT 326
ABH97236
ID   ABH97236 standard; DNA; 12 BP.
XX
AC   ABH97236;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 297229 for detecting SNP TSC0017489.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
```

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XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 297229; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 5 A; 5 C; 1 G; 1 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         62 TAACCAAACG 71
              ||||||||||
Db          2 TAACCAAACG 11


RESULT 327
ABH99235
ID   ABH99235 standard; DNA; 12 BP.
XX
AC   ABH99235;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 299228 for detecting SNP TSC0018484.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 299228; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 7 A; 3 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db          2 TTAACCAAAC 11


RESULT 328
ABI30664/c
ID   ABI30664 standard; DNA; 12 BP.
XX
AC   ABI30664;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 330637 for detecting SNP TSC0035624.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 330637; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
```

```
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 2 A; 0 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db         12 TTAACCAAAC 3


RESULT 329
ABI33514
ID   ABI33514 standard; DNA; 12 BP.
XX
AC   ABI33514;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 333487 for detecting SNP TSC0037567.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 333487; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 5 A; 4 C; 1 G; 2 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         64 ACCAAACGTT 73
              ||||||||||
Db          1 ACCAAACGTT 10


RESULT 330
ABI09821/c
ID   ABI09821 standard; DNA; 12 BP.
XX
AC   ABI09821;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 309794 for detecting SNP TSC0023681.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 309794; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 3 A; 0 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db         11 TTAACCAAAC 2


RESULT 331
ABH82935
ID   ABH82935 standard; DNA; 12 BP.
XX
AC   ABH82935;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 282928 for detecting SNP TSC0011061.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
```

```
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 282928; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 6 A; 3 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db          3 TTAACCAAAC 12


RESULT 332
ABI42230/c
ID   ABI42230 standard; DNA; 12 BP.
XX
AC   ABI42230;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 342203 for detecting SNP TSC0004659.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 342203; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 2 A; 0 C; 4 G; 6 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAA 69
              ||||||||||
Db         12 CTTAACCAAA 3


RESULT 333
ABI01424/c
ID   ABI01424 standard; DNA; 12 BP.
XX
AC   ABI01424;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 301397 for detecting SNP TSC0019480.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 301397; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
```

```
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 1 A; 0 C; 5 G; 6 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db         11 ACCTAACAAC 2


RESULT 334
ABH81224
ID   ABH81224 standard; DNA; 12 BP.
XX
AC   ABH81224;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 281217 for detecting SNP TSC0009555.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 281217; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 2 A; 7 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         57 CCCCTTAACC 66
              ||||||||||
Db          3 CCCCTTAACC 12


RESULT 335
ABI72260
ID   ABI72260 standard; DNA; 12 BP.
XX
AC   ABI72260;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 372233 for detecting SNP TSC0000966.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 372233; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 5 A; 4 C; 1 G; 2 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.7e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         62 TAACCAAACG 71
              ||||||||||
Db          3 TAACCAAACG 12


RESULT 336
ABC46847
ID   ABC46847 standard; DNA; 13 BP.
```

```
XX
AC   ABC46847;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 46864 for detecting SNP TSC0013497.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 46864; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 3 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          61 TTAACCAAAC 70
               ||||||||||
Db           2 TTAACCAAAC 11


RESULT 337
ABC59036/c
ID   ABC59036 standard; DNA; 13 BP.
XX
AC   ABC59036;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 59053 for detecting SNP TSC0015827.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 59053; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy           2 CCTAACAACT 11
               ||||||||||
Db          12 CCTAACAACT 3


RESULT 338
ABC59037
ID   ABC59037 standard; DNA; 13 BP.
XX
AC   ABC59037;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 59054 for detecting SNP TSC0015827.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
```

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XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 59054; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 6 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACT 11
              ||||||||||
Db          2 CCTAACAACT 11


RESULT 339
ABF18554/c
ID   ABF18554 standard; DNA; 13 BP.
XX
AC   ABF18554;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 118551 for detecting SNP TSC0029616.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 118551; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 4 G; 7 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db         10 ACCTAACAAC 1


RESULT 340
ABF39264/c
ID   ABF39264 standard; DNA; 13 BP.
XX
AC   ABF39264;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 139261 for detecting SNP TSC0034880.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 139261; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 1 A; 1 C; 4 G; 7 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
```

```
Qy          62 TAACCAAACG 71
               ||||||||||
Db          10 TAACCAAACG 1


RESULT 341
ABF41979
ID   ABF41979 standard; DNA; 13 BP.
XX
AC   ABF41979;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 141976 for detecting SNP TSC0035562.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 141976; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 3 C; 1 G; 1 T; 0 U; 1 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          63 AACCAAACGT 72
               ||||||||||
Db           4 AACCAAACGT 13


RESULT 342
ABC05273
ID   ABC05273 standard; DNA; 13 BP.
XX
AC   ABC05273;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 5264 for detecting SNP TSC0001793.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 5264; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 5 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          59 CCTTAACCAA 68
               ||||||||||
Db           4 CCTTAACCAA 13


RESULT 343
ABC37107
ID   ABC37107 standard; DNA; 13 BP.
XX
AC   ABC37107;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 37124 for detecting SNP TSC0011592.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
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XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 37124; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 3 C; 0 G; 4 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db          3 TTAACCAAAC 12


RESULT 344
ABC39242/c
ID   ABC39242 standard; DNA; 13 BP.
XX
AC   ABC39242;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 39259 for detecting SNP TSC0012030.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 39259; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 1 C; 4 G; 6 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db         13 TTAACCAAAC 4


RESULT 345
ABF18555
ID   ABF18555 standard; DNA; 13 BP.
XX
AC   ABF18555;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 118552 for detecting SNP TSC0029616.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 118552; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
```

```
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 4 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db          4 ACCTAACAAC 13


RESULT 346
ABF28758/c
ID   ABF28758 standard; DNA; 13 BP.
XX
AC   ABF28758;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 128755 for detecting SNP TSC0032232.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 128755; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 5 G; 6 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db         12 ACCTAACAAC 3


RESULT 347
ABF42612/c
ID   ABF42612 standard; DNA; 13 BP.
XX
AC   ABF42612;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 142609 for detecting SNP TSC0035750.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 142609; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 7 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCA 67
              ||||||||||
Db         10 CCCTTAACCA 1


RESULT 348
ABF76364/c
ID   ABF76364 standard; DNA; 13 BP.
XX
AC   ABF76364;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 176361 for detecting SNP TSC0043771.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
```

```
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 176361; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 1 A; 0 C; 8 G; 3 T; 0 U; 1 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   83.3%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCA 67
              :||||| |||||
Db         13 RCCCCTCAACCA 2


RESULT 349
ABH26674/c
ID   ABH26674 standard; DNA; 13 BP.
XX
AC   ABH26674;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 226651 for detecting SNP TSC0055246.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 226651; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 4 G; 6 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAA 69
              ||||||||||
Db         13 CTTAACCAAA 4


RESULT 350
ABH04438/c
ID   ABH04438 standard; DNA; 13 BP.
XX
AC   ABH04438;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 204415 for detecting SNP TSC0005095.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 204415; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
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CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 1 A; 0 C; 6 G; 6 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db         12 ACCTAACAAC 3


RESULT 351
ABH33480/c
ID   ABH33480 standard; DNA; 13 BP.
XX
AC   ABH33480;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 233457 for detecting SNP TSC0056966.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 233457; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 1 A; 1 C; 4 G; 6 T; 0 U; 1 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         62 TAACCAAACG 71
              ||||||||||
Db         12 TAACCAAACG 3


RESULT 352
ABH12852/c
ID   ABH12852 standard; DNA; 13 BP.
XX
AC   ABH12852;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 212829 for detecting SNP TSC0051854.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 212829; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 5 G; 6 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db         10 ACCTAACAAC 1


RESULT 353
ABF65946/c
ID   ABF65946 standard; DNA; 13 BP.
XX
AC   ABF65946;
```

```
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 165943 for detecting SNP TSC0007423.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 165943; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 0 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db         10 TTAACCAAAC 1


RESULT 354
ABH66896/c
ID   ABH66896 standard; DNA; 13 BP.
XX
AC   ABH66896;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 266873 for detecting SNP TSC0007156.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 266873; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 6 G; 5 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACT 11
              ||||||||||
Db         12 CCTAACAACT 3


RESULT 355
ABC31046/c
ID   ABC31046 standard; DNA; 13 BP.
XX
AC   ABC31046;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 31063 for detecting SNP TSC0009581.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
```

```
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 31063; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 0 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCA 67
              ||||||||||
Db         10 CCCTTAACCA 1


RESULT 356
ABC39241
ID   ABC39241 standard; DNA; 13 BP.
XX
AC   ABC39241;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 39258 for detecting SNP TSC0012030.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 39258; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 4 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db          1 TTAACCAAAC 10


RESULT 357
ABH26675
ID   ABH26675 standard; DNA; 13 BP.
XX
AC   ABH26675;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 226652 for detecting SNP TSC0055246.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 226652; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 4 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAA 69
              ||||||||||
```

```
Db          1 CTTAACCAAA 10


RESULT 358
ABH04439
ID   ABH04439 standard; DNA; 13 BP.
XX
AC   ABH04439;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 204416 for detecting SNP TSC0005095.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 204416; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 6 C; 0 G; 1 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db          2 ACCTAACAAC 11


RESULT 359
ABF91029
ID   ABF91029 standard; DNA; 13 BP.
XX
AC   ABF91029;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 191026 for detecting SNP TSC0046996.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 191026; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 5 C; 0 G; 1 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db          3 ACCTAACAAC 12


RESULT 360
ABH60594/c
ID   ABH60594 standard; DNA; 13 BP.
XX
AC   ABH60594;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 260571 for detecting SNP TSC0008589.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
```

```
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 260571; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 5 G; 6 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db         10 ACCTAACAAC 1


RESULT 361
ABH60861
ID   ABH60861 standard; DNA; 13 BP.
XX
AC   ABH60861;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 260838 for detecting SNP TSC0063327.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 260838; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 8 A; 3 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db          4 TTAACCAAAC 13


RESULT 362
ABH66897
ID   ABH66897 standard; DNA; 13 BP.
XX
AC   ABH66897;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 266874 for detecting SNP TSC0007156.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 266874; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
```

```
SQ   Sequence 13 BP; 5 A; 6 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACT 11
              ||||||||||
Db          2 CCTAACAACT 11


RESULT 363
ABC88860/c
ID   ABC88860 standard; DNA; 13 BP.
XX
AC   ABC88860;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 88877 for detecting SNP TSC0022337.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 88877; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 2 C; 5 G; 3 T; 0 U; 1 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   83.3%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         64 ACCAAACGTTAG 75
              :|||||||||  |
Db         13 RCCAAACGTTCG 2


RESULT 364
ABF23807
ID   ABF23807 standard; DNA; 13 BP.
XX
AC   ABF23807;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 123804 for detecting SNP TSC0030951.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 123804; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 4 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACT 11
              ||||||||||
Db          2 CCTAACAACT 11


RESULT 365
ABF33316/c
ID   ABF33316 standard; DNA; 13 BP.
XX
AC   ABF33316;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 133313 for detecting SNP TSC0033258.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
```

XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 133313; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation. ABC00010
CC -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC represent the oligomers described in the invention. NOTE: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 13 BP; 1 A; 0 C; 4 G; 8 T; 0 U; 0 Other;

Query Match 13.0%; Score 10; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.9e+02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ACCTAACAAC 10
||||||||||
Db 12 ACCTAACAAC 3

RESULT 366
ABH33483
ID ABH33483 standard; DNA; 13 BP.
XX
AC ABH33483;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 233460 for detecting SNP TSC0056966.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 233460; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation. ABC00010
CC -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC represent the oligomers described in the invention. NOTE: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 13 BP; 5 A; 4 C; 2 G; 1 T; 0 U; 1 Other;

Query Match 13.0%; Score 10; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.9e+02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 62 TAACCAAACG 71
||||||||||
Db 2 TAACCAAACG 11

RESULT 367
ABH52889
ID ABH52889 standard; DNA; 13 BP.
XX
AC ABH52889;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 252866 for detecting SNP TSC0061685.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 252866; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,

```
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 4 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match            13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity  100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db          2 TTAACCAAAC 11


RESULT 368
ABF13967
ID   ABF13967 standard; DNA; 13 BP.
XX
AC   ABF13967;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 113964 for detecting SNP TSC0028531.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 113964; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 5 C; 0 G; 1 T; 0 U; 0 Other;

  Query Match            13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity  100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db          4 ACCTAACAAC 13


RESULT 369
ABF23806/c
ID   ABF23806 standard; DNA; 13 BP.
XX
AC   ABF23806;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 123803 for detecting SNP TSC0030951.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 123803; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 4 G; 6 T; 0 U; 0 Other;

  Query Match            13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity  100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 CCTAACAACT 11
              ||||||||||
Db         12 CCTAACAACT 3


RESULT 370
ABF54935
ID   ABF54935 standard; DNA; 13 BP.
XX
AC   ABF54935;
XX
DT   21-FEB-2002  (first entry)
```

```
XX
DE   Oligonucleotide SEQ ID NO 154932 for detecting SNP TSC0039153.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 154932; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 3 C; 1 G; 2 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         63 AACCAAACGT 72
              ||||||||||
Db          4 AACCAAACGT 13


RESULT 371
ABF65614/c
ID   ABF65614 standard; DNA; 13 BP.
XX
AC   ABF65614;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 165611 for detecting SNP TSC0041528.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 165611; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 4 G; 7 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db         13 ACCTAACAAC 4


RESULT 372
ABF39265
ID   ABF39265 standard; DNA; 13 BP.
XX
AC   ABF39265;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 139262 for detecting SNP TSC0034880.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
```

```
XX
PS   Claim 1; SEQ ID NO 139262; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 4 C; 1 G; 1 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         62 TAACCAAACG 71
              ||||||||||
Db          4 TAACCAAACG 13


RESULT 373
ABF69781
ID   ABF69781 standard; DNA; 13 BP.
XX
AC   ABF69781;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 169778 for detecting SNP TSC0042403.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 169778; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 3 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db          4 TTAACCAAAC 13


RESULT 374
ABF78918/c
ID   ABF78918 standard; DNA; 13 BP.
XX
AC   ABF78918;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 178915 for detecting SNP TSC0044309.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 178915; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 4 G; 6 T; 0 U; 1 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db         12 TTAACCAAAC 3
```

```
RESULT 375
ABH33482/c
ID   ABH33482 standard; DNA; 13 BP.
XX
AC   ABH33482;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 233459 for detecting SNP TSC0056966.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 233459; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 1 A; 2 C; 4 G; 5 T; 0 U; 1 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          62 TAACCAAACG 71
               ||||||||||
Db          12 TAACCAAACG 3


RESULT 376
ABH12853
ID   ABH12853 standard; DNA; 13 BP.
XX
AC   ABH12853;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 212830 for detecting SNP TSC0051854.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 212830; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 5 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy           1 ACCTAACAAC 10
               ||||||||||
Db           4 ACCTAACAAC 13


RESULT 377
ABH60595
ID   ABH60595 standard; DNA; 13 BP.
XX
AC   ABH60595;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 260572 for detecting SNP TSC0008589.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
```

XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 260572; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation. ABC00010
CC -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC represent the oligomers described in the invention. NOTE: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 13 BP; 6 A; 5 C; 0 G; 2 T; 0 U; 0 Other;

Query Match 13.0%; Score 10; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.9e+02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ACCTAACAAC 10
||||||||||
Db 4 ACCTAACAAC 13

RESULT 378
ABF09199
ID ABF09199 standard; DNA; 13 BP.
XX
AC ABF09199;
XX
DT 21-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 109196 for detecting SNP TSC0027324.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 109196; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation. ABC00010
CC -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC represent the oligomers described in the invention. NOTE: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 13 BP; 5 A; 6 C; 0 G; 2 T; 0 U; 0 Other;

Query Match 13.0%; Score 10; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.9e+02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ACCTAACAAC 10
||||||||||
Db 4 ACCTAACAAC 13

RESULT 379
ABC66915
ID ABC66915 standard; DNA; 13 BP.
XX
AC ABC66915;
XX
DT 21-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 66932 for detecting SNP TSC0017540.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 66932; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation. ABC00010
CC -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC represent the oligomers described in the invention. NOTE: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 13 BP; 6 A; 3 C; 0 G; 4 T; 0 U; 0 Other;

```
  Query Match           13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity  100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAA 69
              ||||||||||
Db          1 CTTAACCAAA 10


RESULT 380
ABF26801
ID   ABF26801 standard; DNA; 13 BP.
XX
AC   ABF26801;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 126798 for detecting SNP TSC0031720.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 126798; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 4 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match           13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity  100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db          4 ACCTAACAAC 13


RESULT 381
ABF28759
ID   ABF28759 standard; DNA; 13 BP.
XX
AC   ABF28759;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 128756 for detecting SNP TSC0032232.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 128756; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 5 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match           13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity  100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db          2 ACCTAACAAC 11


RESULT 382
ABC37747
ID   ABC37747 standard; DNA; 13 BP.
XX
AC   ABC37747;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 37764 for detecting SNP TSC0011740.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
```

```
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 37764; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 4 C; 0 G; 1 T; 0 U; 1 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db          4 ACCTAACAAC 13


RESULT 383
ABC88861
ID   ABC88861 standard; DNA; 13 BP.
XX
AC   ABC88861;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 88878 for detecting SNP TSC0022337.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 88878; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 5 C; 2 G; 2 T; 0 U; 1 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   83.3%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         64 ACCAAACGTTAG 75
              :|||||||| |
Db          1 RCCAAACGTTCG 12


RESULT 384
ABF33317
ID   ABF33317 standard; DNA; 13 BP.
XX
AC   ABF33317;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 133314 for detecting SNP TSC0033258.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 133314; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
```

```
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 8 A; 4 C; 0 G; 1 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db          2 ACCTAACAAC 11


RESULT 385
ABH34876/c
ID   ABH34876 standard; DNA; 13 BP.
XX
AC   ABH34876;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 234853 for detecting SNP TSC0057331.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 234853; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 5 G; 5 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 CCTTAACCAA 68
              ||||||||||
Db          3 CCTTAACCAA 12


RESULT 386
ABF67071
ID   ABF67071 standard; DNA; 13 BP.
XX
AC   ABF67071;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 167068 for detecting SNP TSC0009524.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 167068; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 8 A; 3 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAA 69
              ||||||||||
Db          1 CTTAACCAAA 10


RESULT 387
ABF13966/c
ID   ABF13966 standard; DNA; 13 BP.
XX
AC   ABF13966;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 113963 for detecting SNP TSC0028531.
```

```
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 113963; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 1 A; 0 C; 5 G; 7 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db         10 ACCTAACAAC 1


RESULT 388
ABF19396
ID   ABF19396 standard; DNA; 13 BP.
XX
AC   ABF19396;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 119393 for detecting SNP TSC0029810.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 119393; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 1 C; 5 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         67 AAACGTTAGG 76
              ||||||||||
Db          3 AAACGTTAGG 12


RESULT 389
ABF26800/c
ID   ABF26800 standard; DNA; 13 BP.
XX
AC   ABF26800;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 126797 for detecting SNP TSC0031720.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 126797; 29pp + Sequence Listing; German.
```

```
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 4 G; 7 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db         10 ACCTAACAAC 1


RESULT 390
ABH52029
ID   ABH52029 standard; DNA; 13 BP.
XX
AC   ABH52029;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 252006 for detecting SNP TSC0061490.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 252006; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 3 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAA 69
              ||||||||||
Db          1 CTTAACCAAA 10


RESULT 391
ABF99752/c
ID   ABF99752 standard; DNA; 13 BP.
XX
AC   ABF99752;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 199749 for detecting SNP TSC0009781.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 199749; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 0 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          61 TTAACCAAAC 70
              ||||||||||
Db          11 TTAACCAAAC 2


RESULT 392
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```
ABH01154/c
ID   ABH01154 standard; DNA; 13 BP.
XX
AC   ABH01154;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 201131 for detecting SNP TSC0049484.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 201131; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCA 67
              ||||||||||
Db         11 CCCTTAACCA 2


RESULT 393
ABF78919
ID   ABF78919 standard; DNA; 13 BP.
XX
AC   ABF78919;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 178916 for detecting SNP TSC0044309.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 178916; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 4 C; 0 G; 2 T; 0 U; 1 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db          2 TTAACCAAAC 11


RESULT 394
ABH34877
ID   ABH34877 standard; DNA; 13 BP.
XX
AC   ABH34877;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 234854 for detecting SNP TSC0057331.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
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XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 234854; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 5 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 CCTTAACCAA 68
              ||||||||||
Db          1 CCTTAACCAA 10


RESULT 395
ABC46846/c
ID   ABC46846 standard; DNA; 13 BP.
XX
AC   ABC46846;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 46863 for detecting SNP TSC0013497.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 46863; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db         12 TTAACCAAAC 3


RESULT 396
ABF01562/c
ID   ABF01562 standard; DNA; 13 BP.
XX
AC   ABF01562;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 101559 for detecting SNP TSC0025290.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 101559; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 0 C; 3 G; 5 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
```

```
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db         10 TTAACCAAAC 1


RESULT 397
ABF09198/c
ID   ABF09198 standard; DNA; 13 BP.
XX
AC   ABF09198;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 109195 for detecting SNP TSC0027324.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 109195; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 6 G; 5 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db         10 ACCTAACAAC 1


RESULT 398
ABC37746/c
ID   ABC37746 standard; DNA; 13 BP.
XX
AC   ABC37746;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 37763 for detecting SNP TSC0011740.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 37763; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 1 A; 0 C; 4 G; 7 T; 0 U; 1 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db         10 ACCTAACAAC 1


RESULT 399
ABC14618/c
ID   ABC14618 standard; DNA; 13 BP.
XX
AC   ABC14618;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 14625 for detecting SNP TSC0003299.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
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XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 14625; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 3 G; 6 T; 0 U; 1 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db         12 TTAACCAAAC 3


RESULT 400
ABC66914/c
ID   ABC66914 standard; DNA; 13 BP.
XX
AC   ABC66914;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 66931 for detecting SNP TSC0017540.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 66931; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 0 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAA 69
              ||||||||||
Db         13 CTTAACCAAA 4


RESULT 401
ABF76365
ID   ABF76365 standard; DNA; 13 BP.
XX
AC   ABF76365;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 176362 for detecting SNP TSC0043771.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 176362; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
```

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CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 8 C; 0 G; 1 T; 0 U; 1 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   83.3%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    1;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         56 GCCCCTTAACCA 67
              :||||| |||||
Db          1 RCCCCTCAACCA 12


RESULT 402
ABH28272/c
ID   ABH28272 standard; DNA; 13 BP.
XX
AC   ABH28272;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 228249 for detecting SNP TSC0055657.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 228249; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 1 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         65 CCAAACGTTA 74
              ||||||||||
Db         13 CCAAACGTTA 4


RESULT 403
ABF54934/c
ID   ABF54934 standard; DNA; 13 BP.
XX
AC   ABF54934;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 154931 for detecting SNP TSC0039153.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 154931; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
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CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 1 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         63 AACCAAACGT 72
              ||||||||||
Db         10 AACCAAACGT 1


RESULT 404
ABH33481
ID   ABH33481 standard; DNA; 13 BP.
XX
AC   ABH33481;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 233458 for detecting SNP TSC0056966.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
```

KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 233458; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation. ABC00010
CC -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC represent the oligomers described in the invention. NOTE: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 13 BP; 6 A; 4 C; 1 G; 1 T; 0 U; 1 Other;

Query Match 13.0%; Score 10; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.9e+02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 62 TAACCAAACG 71
||||||||||
Db 2 TAACCAAACG 11

RESULT 405
ABH52888/c
ID ABH52888 standard; DNA; 13 BP.
XX
AC ABH52888;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 252865 for detecting SNP TSC0061685.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 252865; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation. ABC00010
CC -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC represent the oligomers described in the invention. NOTE: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 13 BP; 2 A; 0 C; 4 G; 7 T; 0 U; 0 Other;

Query Match 13.0%; Score 10; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.9e+02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 61 TTAACCAAAC 70
||||||||||
Db 12 TTAACCAAAC 3

RESULT 406
ABC24651
ID ABC24651 standard; DNA; 13 BP.
XX
AC ABC24651;
XX
DT 20-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 24668 for detecting SNP TSC0005912.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 24668; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic

```
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 4 C; 1 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         65 CCAAACGTTA 74
              ||||||||||
Db          1 CCAAACGTTA 10


RESULT 407
ABC33036/c
ID   ABC33036 standard; DNA; 13 BP.
XX
AC   ABC33036;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 33053 for detecting SNP TSC0010478.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 33053; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 3 G; 8 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db         11 TTAACCAAAC 2


RESULT 408
ABC39243
ID   ABC39243 standard; DNA; 13 BP.
XX
AC   ABC39243;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 39260 for detecting SNP TSC0012030.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 39260; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 4 C; 1 G; 2 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db          1 TTAACCAAAC 10


RESULT 409
ABF41978/c
ID   ABF41978 standard; DNA; 13 BP.
```

```
XX
AC   ABF41978;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 141975 for detecting SNP TSC0035562.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 141975; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 1 A; 1 C; 3 G; 7 T; 0 U; 1 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          63 AACCAAACGT 72
               ||||||||||
Db          10 AACCAAACGT 1


RESULT 410
ABF42613
ID   ABF42613 standard; DNA; 13 BP.
XX
AC   ABF42613;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 142610 for detecting SNP TSC0035750.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 142610; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 7 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          58 CCCTTAACCA 67
               ||||||||||
Db           4 CCCTTAACCA 13


RESULT 411
ABF72397
ID   ABF72397 standard; DNA; 13 BP.
XX
AC   ABF72397;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 172394 for detecting SNP TSC0042980.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
```

```
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 172394; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 5 C; 1 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         65 CCAAACGTTA 74
              ||||||||||
Db          2 CCAAACGTTA 11


RESULT 412
ABF65947
ID   ABF65947 standard; DNA; 13 BP.
XX
AC   ABF65947;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 165944 for detecting SNP TSC0007423.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 165944; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 4 C; 0 G; 4 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db          4 TTAACCAAAC 13


RESULT 413
ABF91028/c
ID   ABF91028 standard; DNA; 13 BP.
XX
AC   ABF91028;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 191025 for detecting SNP TSC0046996.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 191025; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 1 A; 0 C; 5 G; 7 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
```

```
Qy          1 ACCTAACAAC 10
              ||||||||||
Db         11 ACCTAACAAC 2


RESULT 414
ABF67070/c
ID   ABF67070 standard; DNA; 13 BP.
XX
AC   ABF67070;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 167067 for detecting SNP TSC0009524.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 167067; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 3 G; 8 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels .   0;  Gaps    0;

Qy         60 CTTAACCAAA 69
              ||||||||||
Db         13 CTTAACCAAA 4


RESULT 415
ABH46508/c
ID   ABH46508 standard; DNA; 13 BP.
XX
AC   ABH46508;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 246485 for detecting SNP TSC0060249.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 246485; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 4 G; 6 T; 0 U; 1 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 CCTTAACCAA 68
              ||||||||||
Db         10 CCTTAACCAA 1


RESULT 416
ABH59869
ID   ABH59869 standard; DNA; 13 BP.
XX
AC   ABH59869;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 259846 for detecting SNP TSC0007565.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
```

```
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 259846; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 4 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db          3 ACCTAACAAC 12


RESULT 417
ABF99753
ID   ABF99753 standard; DNA; 13 BP.
XX
AC   ABF99753;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 199750 for detecting SNP TSC0009781.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 199750; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 4 C; 0 G; 4 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db          3 TTAACCAAAC 12


RESULT 418
ABF65615
ID   ABF65615 standard; DNA; 13 BP.
XX
AC   ABF65615;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 165612 for detecting SNP TSC0041528.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 165612; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
```

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CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 7 A; 4 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db          1 ACCTAACAAC 10


RESULT 419
ABH46509
ID   ABH46509 standard; DNA; 13 BP.
XX
AC   ABH46509;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 246486 for detecting SNP TSC0060249.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 246486; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 4 C; 0 G; 2 T; 0 U; 1 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 CCTTAACCAA 68
              ||||||||||
Db          4 CCTTAACCAA 13


RESULT 420
ABC24650/c
ID   ABC24650 standard; DNA; 13 BP.
XX
AC   ABC24650;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 24667 for detecting SNP TSC0005912.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 24667; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 1 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         65 CCAAACGTTA 74
              ||||||||||
Db         13 CCAAACGTTA 4


RESULT 421
ABF01563
ID   ABF01563 standard; DNA; 13 BP.
XX
AC   ABF01563;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 101560 for detecting SNP TSC0025290.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
```

```
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 101560; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 3 C; 0 G; 5 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db          4 TTAACCAAAC 13


RESULT 422
ABF72396/c
ID   ABF72396 standard; DNA; 13 BP.
XX
AC   ABF72396;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 172393 for detecting SNP TSC0042980.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 172393; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 1 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         65 CCAAACGTTA 74
              ||||||||||
Db         12 CCAAACGTTA 3


RESULT 423
ABH59868/c
ID   ABH59868 standard; DNA; 13 BP.
XX
AC   ABH59868;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 259845 for detecting SNP TSC0007565.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 259845; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
```

```
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 4 G; 7 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db         11 ACCTAACAAC 2


RESULT 424
ABC05272/c
ID   ABC05272 standard; DNA; 13 BP.
XX
AC   ABC05272;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 5263 for detecting SNP TSC0001793.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 5263; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 5 G; 6 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         59 CCTTAACCAA 68
              ||||||||||
Db         10 CCTTAACCAA 1


RESULT 425
ABC31047
ID   ABC31047 standard; DNA; 13 BP.
XX
AC   ABC31047;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 31064 for detecting SNP TSC0009581.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 31064; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 5 C; 0 G; 4 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCA 67
              ||||||||||
Db          4 CCCTTAACCA 13


RESULT 426
ABF08931
ID   ABF08931 standard; DNA; 13 BP.
XX
AC   ABF08931;
```

```
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 108928 for detecting SNP TSC0027265.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 108928; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 5 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db          1 ACCTAACAAC 10


RESULT 427
ABC14619
ID   ABC14619 standard; DNA; 13 BP.
XX
AC   ABC14619;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 14626 for detecting SNP TSC0003299.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 14626; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 3 C; 0 G; 3 T; 0 U; 1 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db          2 TTAACCAAAC 11


RESULT 428
ABH01155
ID   ABH01155 standard; DNA; 13 BP.
XX
AC   ABH01155;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 201132 for detecting SNP TSC0049484.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
```

```
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 201132; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 6 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         58 CCCTTAACCA 67
              ||||||||||
Db          3 CCCTTAACCA 12


RESULT 429
ABH28273
ID   ABH28273 standard; DNA; 13 BP.
XX
AC   ABH28273;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 228250 for detecting SNP TSC0055657.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 228250; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 4 C; 1 G; 3 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         65 CCAAACGTTA 74
              ||||||||||
Db          1 CCAAACGTTA 10


RESULT 430
ABH52028/c
ID   ABH52028 standard; DNA; 13 BP.
XX
AC   ABH52028;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 252005 for detecting SNP TSC0061490.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 252005; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         60 CTTAACCAAA 69
              ||||||||||
```

```
Db         13 CTTAACCAAA 4


RESULT 431
ABH60860/c
ID   ABH60860 standard; DNA; 13 BP.
XX
AC   ABH60860;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 260837 for detecting SNP TSC0063327.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 260837; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 3 G; 8 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db         10 TTAACCAAAC 1


RESULT 432
ABC33037
ID   ABC33037 standard; DNA; 13 BP.
XX
AC   ABC33037;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 33054 for detecting SNP TSC0010478.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 33054; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 8 A; 3 C; 0 G; 2 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db          3 TTAACCAAAC 12


RESULT 433
ABF08930/c
ID   ABF08930 standard; DNA; 13 BP.
XX
AC   ABF08930;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 108927 for detecting SNP TSC0027265.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
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XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 108927; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 0 C; 5 G; 6 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ACCTAACAAC 10
              ||||||||||
Db         13 ACCTAACAAC 4


RESULT 434
ABC37106/c
ID   ABC37106 standard; DNA; 13 BP.
XX
AC   ABC37106;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 37123 for detecting SNP TSC0011592.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 37123; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 0 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          61 TTAACCAAAC 70
               ||||||||||
Db          11 TTAACCAAAC 2


RESULT 435
ABC39240/c
ID   ABC39240 standard; DNA; 13 BP.
XX
AC   ABC39240;
XX
DT   20-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 39257 for detecting SNP TSC0012030.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 39257; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
```

```
SQ   Sequence 13 BP; 2 A; 0 C; 4 G; 7 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db         13 TTAACCAAAC 4


RESULT 436
ABF19397/c
ID   ABF19397 standard; DNA; 13 BP.
XX
AC   ABF19397;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 119394 for detecting SNP TSC0029810.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 119394; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
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CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 5 C; 1 G; 4 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         67 AAACGTTAGG 76
              ||||||||||
Db         11 AAACGTTAGG 2


RESULT 437
ABF69780/c
ID   ABF69780 standard; DNA; 13 BP.
XX
AC   ABF69780;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 169777 for detecting SNP TSC0042403.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 169777; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 3 G; 7 T; 0 U; 0 Other;

  Query Match             13.0%;  Score 10;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   10;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         61 TTAACCAAAC 70
              ||||||||||
Db         10 TTAACCAAAC 1


RESULT 438
ADF35701
ID   ADF35701 standard; DNA; 14 BP.
XX
AC   ADF35701;
XX
DT   12-FEB-2004  (first entry)
XX
DE   DNA vaccine carrier related oligonucleotide #5.
XX
KW   DNA vaccine carrier; ss.
XX
OS   Unidentified.
XX
PN   CN1382492-A.
```

XX
PD 04-DEC-2002.
XX
PF 18-JAN-2001; 2001CN-00105250.
XX
PR 18-JAN-2001; 2001CN-00105250.
XX
PA (UYFU-) UNIV FUDAN.
XX
PI Yuan Z, Qiu H, Wen Y;
XX
DR WPI; 2003-269422/27.
XX
PT DNA vaccine carrier.
XX
PS Disclosure; Page 14; 23pp; Chinese.
XX
CC The present invention relates to a novel DNA vaccine carrier for humans.
CC The vaccine carrier is composed of cytomegalovirus (CMV)
CC promoter/enhancer, BGH transcription termination signal, a multiclonal
CC site, kanamycin resistance gene, immunostimulant of human immune system
CC and exogenous protein coding gene. The vaccine carrier can be used for
CC preventing and treating diseases. The present oligonucleotide was used to
CC illustrate the invention.
XX
SQ Sequence 14 BP; 3 A; 2 C; 4 G; 5 T; 0 U; 0 Other;

Query Match 13.0%; Score 10; DB 1; Length 14;
Best Local Similarity 100.0%; Pred. No. 2e+02;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy         15 TCAAGTCGTT 24
              ||||||||||
Db          1 TCAAGTCGTT 10
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Search completed: October 29, 2004, 12:31:23
Job time : 3 secs